Evaluation of Phase 2 of the Distance Learning in Small Schools Action Research Project

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Under Contract to Alberta Education

November 31, 1989

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Under contract to Alberta Education, Edmonton, Alberta.

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November 31, 1989

Please Note:

The views and recommendations expressed in this report are those of the evaluators and not necessarily those of the Department of Education.

EXECUTIVE SUMMARY

Phase 2 of the Distance Learning in Small Schools (DLSS) project was heavily influenced by the decision to admit to the project 15 schools in addition to those which participated in Phase 1, bringing the total number of participating schools to 28. The number of courses offered through the project was the same as in Phase 1 (74 across both terms). Nine hundred forty-six students originally registered for 1673 student/courses, and 85% successfully completed them. There were 256 student/courses dropped through students withdrawing from courses, leaving school or moving away. This left 734 students taking 1417 student/courses. Of the 68 students who wrote department examinations, 87% passed.

In many ways the increase in the number of schools and the concomitant increase in the number of students dominated much of the content of the evaluation of Phase 2 by virtue of the additional demands on the services of the tutor/markers. Whereas the evaluators at the conclusion of Phase 1 expected that, with many of the logistical and administrative problems resolved, the tutor/markers would be able to engage students in a more interactive fashion—to become more *tutors* and less *markers*. In actual fact, the evaluators found the role of tutor/markers to be predominantly one of marking, with direct contact between students and tutor/markers largely relegated to the FAX machine.

Course materials of the Alberta Correspondence School continued to be used as the basis for independent study, and once again the evaluators recommend that ACS be encouraged to revise these materials as rapidly as possible and to ensure a "fit" to the provincial curriculum. (New correspondence school materials being piloted in Project North were not available to DLSS schools during Phase 2). Tutor/markers did augment the correspondence school materials with study guides, review and synthesis exercises, written feedback on assignments, and some "live" assistance through teleconferencing—all strengths in the DLSS program. While students were encouraged to seek help locally first, they were encouraged to contact the tutor/markers as a last resort, and about half of the 435 students interviewed indicated that they had done so at least once. Tutor/markers did report an overall increase in the amount of live contact with individual students over Phase 1.

However, given the increased number of students, the per-student contact did not increase. Consequently the approach to instruction was predominantly independent learning. There was little evidence of a "distributed classroom" approach where a teacher and students dispersed over a number of schools employed telecommunications technology to imitate the interactivity of a "real" classroom.

In the 13 schools which had participated in Phase 1, most of the administrative problems encountered in Phase 1 were solved before embarking on Phase 2. Consequently personnel in these schools reported much smoother operations in Phase 2, particularly in controlling the flow of student work. Somewhat surprisingly the learning curve for many of the schools embarking on the project in Phase 2 duplicated that of the first series of schools in Phase 1. This suggests that insufficient information about the experience of Phase 1 was communicated to these schools. They tended to underestimate the administrative, logistical, financial, and personnel requirements to make distance education operate smoothly. By the time the evaluators actually visited the schools during the second term, many of their problems had been resolved; and in cases where they were not resolved, one could point to factors beyond the control of the project. Lessons to be learned from this experience include the need for clear documentation on the operation of an effective distance learning program, and effective communication. The evaluators noted that during the course of Phase 2 the project office developed a policy and procedures manual which should be useful to schools in the future.

Schools which participated in Phase 1 tended to retain organizational structures similar to those which they had used in the past, with the exception that more schools assigned students to distance education periods, and schools which had not closely monitored the completion of students assignments in Phase 1 did so. The potential flexibility inherent in an independent study approach was forsaken in favor of ensuring course completion. By the end of Phase 2, most of the new schools had also adopted such monitoring techniques. The staffing patterns tended to be somewhat different in the new schools because they entered of their own volition and did not receive some of the financial assistance which was given to the original 13. Consequently, with the exception of Acme and Nobleford, new schools did not have their staffs augmented by an intern. Several provided assistance through the use of teacher aides who looked after FAXing, record keeping, and other such tasks. Professional supervision was often rotated among members of the teaching staff. An approach adopted in Stirling which appears to have merit was the assignment of each distance education student to a member of the regular staff who was to

serve as the local mentor/monitor for that student. As an aside, it was noted that more of the regular staff members in the participating schools were involved with distance education students in Phase 2 than was the case in Phase 1. This is commendable and should be encouraged. The fact that it is taking place would seem to indicate among other things that staff are less suspicious of this approach to augmenting their educational programs than was the case in Phase 1. It was observed that the effectiveness of the program appears to be very dependent upon the effectiveness of the local coordination.

A second organizational innovation which merits comment in Phase 2 was the adoption of a distributed approach to tutor/marking for mathematics. Tutor/marking services were divided among the mathematics teachers in the high schools in the County of Newell as part of their regular teaching load. From an administrative perspective this provides an effective way of using staff and supporting the distance learning program. From the perspective of the participants it was fraught with difficulties. The time allocated for tutor/marking appears to have been less than desirable for the load; tutor/markers were often not available at times when contact with them was desired (though they were certainly responsive in returning phone calls); and there appears to have been confusion over what tutor/marker was dealing with what course. Given the large number of students who register for mathematics courses through distance education, one is lead to suggest that, for schools with large numbers of registrants, teaching all the courses locally with the support of a computer managed learning system might be an appropriate alternative. This is tempered with the advice that the use of such a system should be augmented with the review and synthesis exercises implemented by the tutor/markers.

The location of tutor/markers was again raised by superintendents who generally expressed the belief that they should be school based rather than home based. There is, however, no evidence to suggest that home-based tutor/markers are less effective than those who are school-based. Assignments received by a tutor/marker at 4:00 am and FAXed back to the school at 5:30 am would suggest the contrary—though that raises another set of issues. The evaluators would suggest that an option which has been discussed should probably receive further consideration; viz., housing all the tutor/markers in one or a very small number of locations. This would facilitate providing the clerical support which all tutor/markers request and also make more efficient use of the equipment.

Workload and remuneration of tutor/markers was placed outside the scope of the evaluation for Phase 2 because they became matters of negotiation. With those items

excluded, most participants in the project seemed satisfied with what had been accomplished—exceptions were individual incidents in individual schools, and not generic to the project. The benefits of the project remain offering access to a greater number of courses in small schools, retaining students in school (and perhaps retaining the school). In some larger schools the advantages were perceived to be the flexibility that was allowed for dealing with students who enter the school mid-term or for some other reason are out of sequence or have time-table conflicts.

A concern expressed by the tutor/markers and shared by the evaluators is that students who can be predicted to have the most difficulty learning through distance education are the ones who are channeled most into the courses offered through distance education. This is unavoidable in most of the courses offered because distance education is being used to offer courses not available locally and for which there may not be expertise locally. The exception is courses such as English and Mathematics for which there are "academic" and "non-academic" paths. It is the "academic" courses that are normally taught locally and the "non-academic" ones offered through distance education. It certainly argues for ensuring that the materials used by the students are well-designed and supported by adequate resources such as videos. To date there appears to have been little impact, if any, on school libraries as a result of schools embarking on distance education. One would hope that the holdings of school libraries would be increased to provide the supporting resources necessary for an effective distance education program.

The other concern held by the evaluators is that the value of interactive, real-time activities seem to be regarded as "add-ons" to the program, and the benefits are not perceived to outweigh the disadvantages associated with adjusting school time-tables to permit distance education students to participate. On the one hand this leads to the recommendation that training in the effective used of interactive technologies be given to tutor/markers for subjects most needing such technologies, and on the other to a supplementary concern that curricular goals of the mainstream Alberta curriculum which are dependent upon interaction among teacher and students are not being met.

Technological innovations during Phase 2 included the addition of an electronic mail and bulletin board service. This was gradually implemented over the second term, and use was not extensive, though most personnel interviewed thought that it had considerable potential. They did, however, value the fact that the FAX machines could handle handwriting and math symbols, and spewed out paper to catch the recipient's attention.

What use was made of the electronic mail/bb system was administrative in nature. The evaluators would again like to see the system used to advantage as a pedagogical tool.

A cost analysis was performed employing cost data supplied by the Project Office, and from these extrapolating cost data for the project as a whole. Costs to the Project Office were $763, 309, or $107 per credit, or $3731 per FTE student. (If the cost of the interns is omitted, these costs become $634,609 or $89 per credit or $3,101 per FTE student.) Including interns, when direct costs to the schools are added, the total direct cost for Phase 2 becomes $949,289 or $133 per credit, or $4640 per FTE student. Finally if the indirect costs associated with personnel are added, the total project cost for Phase 2 becomes $985,096, or $138 per credit, or $4830 per FTE student. In terms of per FTE student this is approximately $1,200 per FTE student higher than the courses regularly taught in the schools by conventional means. However, it is approximately $2,600 per FTE student less than it would cost to add staff to the schools to provide a complement of courses equivalent to that offered by the DLSS Project.

Finally, it was hypothesized that aides might provide much of the support provided in Phase 2 by interns and coordinators, and that much of the supervision might be absorbed by regular staff. It was further hypothesized that an average of a half-time aide for each school might provide the necessary support. To test the cost impact of this approach, the costs of school-based personnel for Phase 2 were removed and the costs for a half-time teacher aide in each school was substituted. The hypothetical cost for this configuration was a total cost of $695,218, or $97 per credit, or $3395 per FTE student. This cost would be comparable to the cost of conventional instruction. If one were to add the costs for a consortium coordinator on a basis similar to that used by Distance Learning Project North, one would arrive at a new total of $785,218 OR $109.65 per credit OR $3838 per FTE student.

Response to the project as a whole was positive. Eighty-five percent of the 435 students interviewed indicated they would take courses this way again and would recommend it to others. Students, like adults, however, felt the need for additional help for those students who find independent study difficult.

The evaluators would compliment the Project on the large number of recommendations in the Phase 1 evaluation report that were addressed. There are a number of recommendations arising from the Phase 2 evaluation. These are less of an

administrative nature than the recommendations in Phase 1 and are probably more difficult to address.

1. The Alberta Correspondence School should be encouraged to continue as rapidly as possible with the revision of its materials.

2. Instructionally richer materials and alternate paths through the materials should be developed to aid students who have difficulty.

3. Support materials (audiovisual resources, kits, etc.) should be developed/acquired for those courses which require them.

4. A systematic inservice program should be implemented for personnel directly involved with distance education, focusing on pedagogical techniques appropriate for distance education.

5. Courses taught through Distance Education should be examined for curricular fit to the mainstream curriculum of the Province, and where serious discrepancies are noted, the distance education curriculum should be revised.

6. Involvement of local professional staff in the distance education program should be encouraged.

7. The independent study model should be differentiated from the distributed classroom model of distance education, and for those subject areas for which the distributed classroom model is more appropriate an effort should be made to facilitate it. At the school level this implies making appropriate time-tabling adjustments; at the consortium level it implies re-examining the workload of the tutor/markers and providing appropriate training.

8. The trend toward FAXing answer sheets rather than whole instructional booklets should be encouraged.

9. A guide about what to look for when purchasing equipment and matching it to anticipated needs should be prepared for the guidance of those who will be acquiring it for the first time.

10. A program should be developed for introducing newcomers to such technologies as electronic mail which not only teaches them how to use it, but provides them with incentive to continue using it until the use becomes habitual.

11. Tutor/markers should be encouraged to formally incorporate such communication technologies as electronic bulletin boards and teleconferencing into the teaching methodology of their courses wherever discussion among students is appropriate.

12. The Project should decide whether or not it does wish tutoring services in addition to marking services from the tutor/markers, and if it does, it should determine the level of tutoring services required by subject area, and adjust the workloads to accommodate them.

13. When an interactive technology such as teleconferencing is required to achieve the instructional goals of a course, schools should facilitate students enrolled in such courses participating.

14. Consultation should take place between a tutor/marker and the school involved prior to the tutor/marker taking disciplinary action against a student for assignments not received.

15. Documentation on the costs and support requirements for distance education programs should be made available to schools who are considering embarking on this approach to education.

16. Realistic deadlines should be set for product and program development, and products should actually exist before availability dates are announced.

17. Lab dependent courses should be reviewed, particularly in the areas of Industrial Arts, Beauty Culture and Computer Processing, to see if more such courses can be offered through distance education.

18. New course development for high schools should include the development of a distance education version which parallels the course to be taught in the regular classroom.

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1. INTRODUCTION

Contextual Factors

During 1988-89 the Distance Learning in Small Schools (DLSS) Project was one of two developmental projects undertaken by Alberta Education to test a series of approaches intended to increase course offerings in high schools. Of particular concern were schools where, because of small student populations, the number of course offerings was substantially below that of schools in urban centres. The second project which began in 1988-89 was called Distance Learning Project North (DLPN). The evaluation of Project North does not fall within the scope of this report—a separate project to evaluate Project North is under way. However, the addition of Project North to the provincial effort has influenced the context in which the DLSS Project is evaluated, and for that reason some attention to the provincial scene overall is warranted at the outset of this report.

Both the DLSS Project and DLPN have espoused "distance learning" as their identifying characteristic. This legitimately links the projects to other efforts in several countries which deal with educational offerings to small numbers of students distributed over a wide geographic area. It also makes public description of the projects easier through focusing on concrete variables associated with the technology. It is the view of the evaluators, however, that, while the label *Distance Learning* is a useful one, it also tends to mask some of the most significant thrusts of both projects, and if one were to concentrate upon them solely in terms of the implementation of distance learning technology, one would miss some key elements. For this reason, we would like to begin this report by presenting a somewhat different framework in which to consider the DLSS Project.

The challenge to the Province is to increase course offerings to students in schools where the number of teachers is too small to offer all the courses that might be desired or desirable. Economic reasons dictate against simply increasing the number of teachers. Therefore, if the number of available courses is to be increased, and support is to be given

to more courses, an alternative to traditional methods of classroom education must be found—one cannot simply add to existing teacher workloads. Instead some of the responsibilities currently assigned to teachers must be shifted elsewhere, and some teaching functions must be made less dependent upon geographic variables.

Table 1.1
Shifting roles in the evolving Alberta model

Student Change • Increase independent study Teacher Change • Reduce primary "delivery" role • Decrease testing/management role • Increase support/facilitator role • Share teaching resources among schools

The first shift is from largely teacher-directed and -delivered education to more independent study. This permits a greater variety of courses, while reducing one type of teaching responsibility. In some subject areas it also appears possible to transfer a significant portion of the record keeping and testing functions to computer. The combined reduction in teacher load can then be re-directed to a facilitator role for a larger number of courses. This can provide a partial solution to the need to support more courses. However, there are still limits on the number of courses it is reasonable to expect teachers to support, and there is still the fact that a small teaching staff in all likelihood will not collectively have the expertise required to support all the courses that a school might wish to make available to its students.

That brings us to the second aspect of the model, the need to distribute teacher support over more than one school. Teacher support may take the form of tutorial support for students who are engaged in independent study. For other subjects the interactive

nature of a classroom needs to be maintained even though the students are located in a number of schools—virtually a *distributed classroom*. It is to meet these needs that the concept of distance education enters. Through the use of a variety of technologies support can be offered to students in more than one school with minimal concern for geographical issues. In some cases, this may be arranged among a small cluster of two or three schools, and a teacher in one school can provide support for students in all schools in the cluster. In other cases, the number of students interested in taking a course may be very few and the most feasible way to support it is through a central tutor/marker serving a consortium of school districts covering a wide geographic area. In order to be comprehensive, one should probably complete the model with a fourth level, province-wide. This would include both the Alberta Correspondence School and any other implementation in which a central facility served students across the whole province.

Table 1.2
Implementation modes in the evolving Alberta model

- Local Implementation (Computer Managed Learning)
- Small Cluster Implementation
- Wide Area Implementation (Consortium)
- Province-wide

In terms of the two projects in progress during the reporting period for this evaluation, local implementation took place in mathematics in schools participating in Project North. Materials developed by the Alberta Correspondence School permitted students to study all math courses available in the Province. Testing and record keeping were done using a computer managed learning (CML) system, thereby freeing time for the teacher to act as a tutor to a variety of math courses. Other schools, also participating in Project North experimented with the Small Cluster Model, where a Physics teacher in one school taught physics to students in another school. Telephone, teleconferencing, and FAX machines were used to bridge the distance between the students and the off-site teacher.

Table 1.3

Participating schools arranged by district.

Berry Creek Sch. Div. #1	Cessford (New Cessford School)
Co. of Forty Mile #8	Bow Island (Senator Gershaw)* Foremost School* Manyberries School
Co. of Lethbridge #26	Coalhurst High School* Nobleford (Noble Central)*
Co. of Newell #4	Bassano School* Duchess School* Rosemary School Tilley School
Co. of Paintearth #18	Castor (Gus Wetter)* Coronation School*
Co. of Stettler #6	Endiang School
Co. of Vulcan #2	Lomond School
Co. of Warner #5	Warner School*
Co. of Wheatland #16	Cluny Bow Valley School Hussar School Standard School*
Cypress Sch. Div. #4	Irvine School*
Neutral Hills Sch. Div. #16	Altario School Consort School*
Rangeland Sch. Div. #9	Youngstown School
Starland Sch. Div. #30	Delia School Morrin School
Stirling Sch. Dist. #647	Stirling School*
Taber Sch. Div. #6	Grassy Lake (Chamberlain School)*
Three Hills Sch. Div. #60	Acme School* Carbon School

* indicates schools new to the Project in Phase 2.

It is the third model, the Wide Area or Consortium implementation which was used in the Distance Learning in Small Schools Project in Phases 1 and 2. Tutor/Markers were provided in a number of subject areas and, working out of either schools or their homes, they served all the participating schools. Again the materials for independent study were obtained from the Alberta Correspondence School, and FAX, telephone, and teleconferencing were used to bridge the distance. In Phase 2 of the project which took place in 1988-89, an electronic mail/bulletin board system was implemented as yet another means of dealing with geographic separation.

Participants in DLSS Phase 2

In the first phase of the DLSS Project, 13 high schools participated, most of which had student populations of 50 students or fewer. In Phase 2 the number of schools increased to 28. Table 1.1 lists the participating schools according to jurisdiction. Within this list are three categories of schools participating in Phase 2: (1) schools which participated in Phase 1, (2) schools which did not participate in Phase 1, but belonged to jurisdictions which participated, and (3) schools which did not participate in Phase 1 and belonged to jurisdictions which did not participate. These are identified in Table 1.4. The fact that the schools fell into these categories led the evaluators to probe not only whether schools which had participated in Phase 1 modified their approach based on the first year's experience, but also whether useful information passed within districts from Phase 1 schools to those beginning in Phase 2, or from jurisdictions which had participated in Phase 1 to jurisdictions joining the project in Phase 2.

It should also be noted that all schools which joined the project in Phase 2 did so of their own initiative and not upon the solicitation of the Project Office. Certain commitments were made to the Phase 1 schools including financial assistance for such items as coordinator release time, partial payment of interns, capital acquisitions, communication and supply costs, did not apply to those schools which joined the project in Phase 2. As a result, the schools joining in Phase 2 frequently had to consider alternatives to approaches adopted by Phase 1 schools in order to live within budgetary and staffing constraints. The schools joining the project in Phase 2 did receive the same consulting, coordinating, and tutor/marking services from the Project Office as did the Phase 1 schools.

Table 1.4
Schools clustered by participation/non-participation in DLSS Phase 1

Schools which participated in both Phase 1 & Phase 2:

Altario	Lomond
Carbon	Manyberries
Cessford	Morrin
Cluny Bow Valley	Rosemary
Delia	Tilley
Endiang	Youngstown
Hussar	

Schools joining in Phase 2 from districts participating in Phase 1::

Acme	Duchess
Bassano	Foremost
Bow Island	Standard
Consort	

Schools joining in Phase 2 from districts <u>not</u> participating in Phase 1:

Castor (Gus Wetter)	Irvine
Coalhurst	Nobleford
Coronation	Stirling
Grassy Lake (Chamberlain School)	Warner

Evaluation Methodology

The three data-gathering techniques employed in the evaluation consisted of examination of relevant records, interviews with those participating in the project, and, in the case of coordinators and tutor/markers, maintaining logs for selected time samples. The records of interest which were examined included course offerings, enrollments, and

completions, and (where possible) financial reports. Because there is no consistent method of accounting for charges to the project among the districts involved, costing information over the whole project is not as complete as one would wish. The most accurate subset of cost information applies to the original 13 schools which charged a large portion of their costs back to the DLSS Project office.

An effort was made to interview as large a sample as possible of those who were involved in the project: superintendents, principals, coordinators, interns, teacher aides, tutor/markers, and students. Originally it was expected that the larger number of schools in 1988-89 would reduce the possibility of direct contact with students and plans were made to use a questionnaire as the chief means of eliciting information from students. As it turned out, it was possible to interview practically all of the students who were present on the day the evaluation team visited the schools. A total of 435 students were interviewed. Schools were provided with a master parental permission form which could be duplicated and used if school policy required. A copy of this form appears in Appendix G. Only three students declined to be interviewed. All three had been interviewed during the Phase 1 evaluation and felt they did not wish to be interviewed again. As a result of the large number of student interviews, questionnaires were not employed.

In addition to those listed, a small number of parents were interviewed. Contact with parents was organized through the schools. There is some concern on the part of the evaluators that the sample of parents may not have been representative of the population. Interviews of students and parents were conducted by research assistants; all other interviews were conducted by the principal investigators. Interview protocols were followed in each interview. Copies of the protocols appear in Appendix A.

The final device for gathering data was the use of logs by the project coordinators and tutor/markers. These were kept for three time periods: January 23 to 29, April 17 to 28, and May 22 to June 2. The purpose of the logs was to check the "traffic" on the system, to sample the extent to which different technologies were being employed and with which schools, and to provide the tutor/markers with a means of recording critical incidents. A time-sampling approach was selected in order to avoid placing too great an additional burden on the tutor/markers. The first of the three time periods was selected to coincide with the beginning of the semester when it was anticipated that tutor/marker load would be lighter and they would have an opportunity to become familiar with the log. A shorter time period (one week) was also employed for this log because it was as much a test of

instrumentation as a record of activity. The remaining two logs were for periods of two weeks each.

Based on experience with using logs in the Phase 1 evaluation, the format of the logs was changed this year. The tutor/marker logs did not require logging of turnaround time for each assignment because of the magnitude of the additional record keeping associated with this task (this information was checked at the schools). However, tutor/markers were asked to keep track of the contact points for phone and EMail communications. This was done to pursue a concern expressed in the Phase 1 evaluation that there was very little direct contact between students and tutors. A free-form format was used for the school coordinator logs. It was felt that the variety (and in many cases, dissimilarity) of tasks performed by coordinators made a structured format inappropriate. Suggested categories of activities were provided in the preface to the log books, but most coordinators preferred to make more specific entries. Samples of the logs appear in Appendix B, and summaries of the data collected appear in Appendix C (tutor/marker) and Appendix D (coordinator).

Organization of Report

The remainder of this report is organized around five themes: (1) Pedagogical Issues, (2) Administrative Issues, (3) Technological Issues, (4) Societal Issues, and (5) Cost Issues. The evaluation questions which were specified in the RFP to evaluate the DLSS Project will be addressed within this framework (see Table 1.5).

There are two footnotes to this selection of themes. The first is that the categories for reporting are not mutually exclusive. For example, the appropriate use of teleconferencing as a teaching device is not only a technological issue but a pedagogical one; the scheduling of teleconferencing as it impacts school time tables is an administrative issue. Consequently in some cases a topic may be raised in the report in more than one chapter, and in other cases the evaluators have exercised a degree of arbitrariness in deciding under which heading to include particular topics.

The second caution is that the term "Pedagogy" is being used very broadly to include such matters as course offerings and completions as well as course content and quality and teaching techniques.

Table 1.5

Questions specified in RFP

1 Increased Course/Program Choice

1.1 How has the choice of course and/or program offerings changed in the small schools involved in the project between the years of 1986 and 1989?

1.2 How many additional students are accessing additional courses and/or programs because of the distance learning project?

1.3 How do the enhanced course/program offerings in the project high schools compare with the offerings of a sample of Alberta high schools with student populations over 300 which are assumed to be capable of offering full programs?

1.4 In a description of each small school's program involved in the project: (a) what is occurring in terms of new programs; (b) what are the differences and varying program approaches between the project schools; (c) which ones are and are not cost-effective; (d) which approaches have features that result in improved education pedagogically, that are also cost-effective; (e) are there any approaches that are educationally unsound?

2 Quality of Course Delivery

2.1 How does the quality of course delivery and support services to distance learning students in participating small schools over the three year duration of the project compare to that of regular ACS students who attended Alberta schools in 1986?

2.2 How has the student learning environment been affected by the decentralized delivery of distance education services in participating small schools?

3 Resource Sharing and Effectiveness

3.1 What new cooperative ventures and/or resource sharing occurred between schools and/or jurisdictions involved in the project and how did these affect the quality of educational services and the costs of educational services?

3.2 How has the size of class/course enrollments of students in participating project schools changed between 1986 and 1989?

Table 1.5 cont'd

4 Learning Environment—Student Performance

4.1 How do student examination results in the small schools involved in the project compare with examination results of students attending schools elsewhere in the province as determined by provincial averages of final examination marks?

5 Satisfaction

5.1 How satisfied are the teachers, distance learning coordinators, tutor/markers, principals, superintendents, parents and students who are involved in the project?

5.2 What has been the impact on students, parents, teachers, principals and superintendents who were involved with the Distance Learning in Small Schools project?

6 Applications of Technology

6.1 What technologies were applied to the decentralized distance learning project with what results?

6.2 How effectively can these technologies be applied throughout the province in cost-effective ways?

7 Course Design

7.1 What ACS courses/units in use by students involved in the Distance Learning in Small Schools Project were selected as most in need of development/upgrading and what was the basis for selection?

7.2 What course design model or instructional design model was chosen to guide course development activities?

7.3 What systematic approach was chosen to insure that instructional course objectives in each course/unit would be met?

7.4 What effective techniques for independent learning were incorporated into the revised/newly developed courses/units?

7.5 What technologies were incorporated into the revised/developed courses/units and were these appropriate in terms of learning needs and cost-effectiveness?

7.6 What impact has the newly developed/upgraded course and/or units had on the motivation and the achievement of students involved in the project?

Table 1.5 cont'd

8 Implications for Provincial Follow-up

8.1 What are the projected costs of implementing a decentralized distance delivery approach to small schools province-wide?

8.2 How should future decentralized distance delivery initiatives be structured to achieve the goals of schooling in a cost-effective way and at minimal cost to the province?

9 To this original list the following topics were added in 1989:

9.1 Management changes in original 13 schools resulting from the experience in Phase 1.

9.2 Organizational structure in new schools not receiving the same amount of financial support from the Project given to the original 13 schools.

9.3 Changes in tutor/marker operations as a result of more schools and more students.

9.4 Effectiveness of the computer network.

9.5 Cross-over from Project North.

9.6 Commitment of school boards to continue distance education at the conclusion of the project.

Final Caveat

In the spring of 1989, Alberta Education decided to discontinue both the DLSS Project and Project North and incorporate them into a general provincial thrust in distance education. A special funding arrangement was established to support distance education against which school districts could apply for support. The news of these changes reached the schools in the DLSS Project in the midst of the visits to the schools by the evaluation

team. Considerable uncertainty existed among the participating schools about what was going to happen, and this in turn had some influence upon what was said to the evaluators in the interviews. The evaluators have, to the best of their ability, taken these circumstances into account in interpreting the results of the interviews. The reader, however, is advised that this rather large perturbation did occur in the midst of the evaluation, and may to some degree have influenced the outcome.

Table 2.1 cont'd

COURSE	*1st T*	*2nd T*	*Both*	*Pass*	*Withdrew*
Sociological Inst 20	1			1	

2. PEDAGOGICAL ISSUES

Courses Offered

A total of 74 courses were offered through the DLSS Project during 1988-89. Table 2.1 lists the courses offered, the number of registrations, the number of students who passed, and the number of withdrawals. The data from which this table was extracted appears as Appendix F.

Table 2.1
Courses offered through the DLSS Project during 1988-89.

COURSE	*1st T*	*2nd T*	*Both*	*Pass*	*Withdrew*
Accounting 10	17	21		26	5
Accounting 20	7	17	1	10	13
Accounting 30	6	18	5	15	12
Agriculture 10	5	6	2	10	3
Art 10	16	15	12	17	13
Art 20		1	1	2	
Basic Bus 20	14	17		26	4
Biology 10	11	9		10	1
Biology 20		7		3	4
Biology 30	3	5	4	11	1
Build Const 12	14	15	16	35	6
CALM 20	1	12		10	
Chem 10	4	4		5	1
Chem 20	7	12		7	7
Chem 30	1	1	3	2	3
Clothing & Tex 10		5		4	1
Drafting 10	10	13	8	26	4
Electronics 12	2			1	1
English 10	1	6		3	4
English 13	9	21	8	36	3
English 20	2	5	1	5	2

goals and, if equity in education is to be achieved, these goals also must be addressed in distance education.

Tutor/Marker Pedagogical Roles

Elsewhere Clark[1] has speculated that the professional activities needed on the part of tutor/markers to support distance education can be loosely taxonomized by level of activity and by whether or not "live" communication is present between teacher and student, and, if not, whether the delay is long or short. Table 2.3 is the framework in which this analysis takes place.

Table 2.3
Levels of teacher roles crossed with present or absence of live communication.

	Live Communication		
	Absent		Present
Teacher Role	Long Delay	Short Delay	No Delay
Discussant			
Tutor (Pro-active)			
Tutor (Reactive)			
Marker			

The cells in the table can be used to fill in examples of relevant teaching/learning activities. The *marker* role is, as the name implies, one of marking assignments and tests and providing feedback of a largely right/wrong nature to the students. *Reactive tutoring* provides assistance to students based on where problems have been observed in assignments and quizzes or in direct response to requests from students for help. *Pro-active tutoring* anticipates learning needs and provides assistance to students as they enter new and/or difficult content. It may also apply to activities associated with supporting discovery learning. The *discussant* role is one associated with those teaching activities in which students are expected to collectively generate content and for which the desired learning outcomes are as much in the process of generating the content as in the content

Science 11	11	18	17	40	
Soc Studies 10	2	8	1	4	4
Soc Studies 13		7	6	10	
Soc Studies 20	4	12		10	3
Soc Studies 30		7	1	6	1

itself. Many activities in Social Studies and Career and Life Management (CALM) would be examples of this.

Different subjects require different levels of support and are tolerant of lesser or greater degrees of communication delay. In some cases mediated interventions can be effectively substituted for human interventions and in others cases they cannot. Depending upon the subject area, the desired learning outcomes, and the characteristics of the students, different levels of support are appropriate to support independent learning. An extension of the application of the model is that for some learning outcomes, e.g., the oral component of language, "no delay" communication is preferable to both long and short delays. A further extension is that where the support must be "discussant/no delay," the appropriateness of the independent study model itself can be called into question. Many desirable activities in Social Studies, for example, would be better served by a distributed classroom model and than independent study model.

The foregoing has been introduced at this point more to suggest an area which needs further examination in the DLSS Project than to report outcomes from the Phase 2 evaluation. It has been triggered by the fact that the professional support services arranged through the system of tutor/markers has been predominantly "marker" with some reactive tutoring and a little bit of pro-active tutoring. Not only has there been very little, if any, support of a discussant nature, there has been very little support for applying technologies such as teleconferencing which would facilitate the distributed classroom model—it has been treated largely as an "add-on" to a program of independent study.

Student Suggestions

The students had a variety of suggestions for improving the courses, which tended to correspond rather closely to the suggestions of the adults interviewed. Following is a sample of the more frequent suggestions from:

- Make the lessons shorter.
- The lessons need more examples.
- More time is required for many lessons.
- Make the readings more interesting.
- Provide more practical sections for vocational courses.

- Revise the French audio cassettes—they're too fast.
- Get rid of true/false questions.
- Courses in mechanics should include a glossary.
- Make courses self-pacing.
- Exams should be written when courses are completed.
- There should be more preparation for quizzes.
- Better explanations and definitions are needed for Psychology & Sociology.

Student Logistics

Table 2.4 indicates students responses to being asked when they did most of their studying for distance learning courses, and Table 2.3 indicates where they reported doing most of their studying for these courses.

Table 2.4
When students studied distance education courses.

Regularly scheduled periods	297
Spares	24
Outside school hours	156

Table 2.5
Where students studied distance education courses.

At home	162
Distance learning room	223
Library	32
Regular classroom	57
Other	15

Student Support

A disappointment in Phase 2 was to find that the additional marking loads of the tutor/markers kept them largely in a "marker" role, and while there was some evidence of more direct contact between students and the tutor/markers over that found in Phase 1, it was not appreciably larger. Generally the principle was formalized that students were to seek help locally first and only as a last resort were they to contact the tutor/markers. Table 2.6 indicates where student indicated they went for assistance:

Table 2.6
Sources of help and number of students using each source.

Tutor/marker	165
Coordinator	73
Intern	23
Aide	9
Other teachers	248
Other students	180
Parents	64
Others	25
Didn't seek help	22

Data are not available on how frequently students used each source, only on how many student used each source at least once. Even on that basis, one can see that most turned to local sources of assistance. This finding is consistent with logs kept on the use of telephone and EMail by tutor/markers for five weeks during the second term. (See below, Chapter 3.)

Most contact with the tutor/markers would appear to have been through assignments FAXed to the tutor/markers and feedback from the tutor/markers via the FAX. Four hundred of the 435 students interviewed indicated that the feedback they received on their assignments was useful, at least some of the time. When asked for examples, they commonly mentioned features such as:

- Corrected work (114)
- Being referred to sections in the textbook (53)
- Comments of encouragement (50)
- Suggestions for alternate methods of doing things (30)
- Hints for tests (16)
- Hints for studying (15)

Most project personnel seemed to feel that more direct contact between students and tutor/markers was desirable. Some superintendents suggested that the tutor/markers should routinely visit schools. Given geographic factors, workload and travel costs, that does not appear to be feasible given the project as it was organized in 1988-89. Some of the tutor/markers, however, did indicate that they would like more direct contact with the students and felt that coordinators should encourage student to contact the tutor/markers directly. However, they also tempered this suggestion by indicating they felt that the FAX and electronic mail systems would be more appropriate than the telephone as the costs would be less and time constraints would be less of a concern.

Resources Used

The evaluators were also interested in knowing what resources students drew upon outside ACS materials when completing assignments. Table 2.7 shows the responses of students to this question.

Table 2.7
Number of students reporting using supporting resources.

Library books	133
Films	11
Videotapes	28
Filmstrips	1
Audiocassettes	55
Kits	33
Other teachers	292
Tutor/markers	225

Orientation for New Students

A circumstance which pleased the evaluators was to discover that much more attention was paid to orienting new students to distance learning in Phase 2 than happened in Phase 1. Most students reported that they received some orientation to the program and its elements, though 60 students stated they had received no orientation. Such preparation took place in the school, primarily at the hands of the principal and/or the coordinator. In most cases the distance learning student were assembled to explain the various options available to them. There were additional orientation sessions dealing with teleconferencing, the routine for FAX materials, and arrangements with the tutor/markers. Information was also provided through handouts about student responsibilities, behaviours expected, and in some cases about "contracts" to be signed. (Some schools also held orientation sessions for parents.)

Overall Student Perceptions

When asked about their perceptions of how they were performing academically in the distance education courses compared to their "regular" courses, 249 (56%) felt they were doing better in the distance education courses; 151 (34%) felt they were doing about the same; and the remaining 45 (10%) felt they were doing worse. Asked if they would continue to take courses this way, 369 (85%) indicated that they would, while 65 (15%) replied that they would not. (One student was undecided). Asked if they would recommend distance education to other students, 388 (89%) replied in the affirmative, and 46 (11%) replied that they would not.

Technology in Teaching

A general discussion of the use of technology during Phase 2 will be addressed in Chapter 3. There is, however, a concern on the part of the evaluators that technology could be used more for pedagogical as well as administrative purposes than is the present case. A review of the use of the electronic bulletin board, for example, shows the applications to

have been almost entirely administrative in nature. Yet technologies such as electronic bulletin boards and teleconferencing can be incorporated into teaching subjects such as Social Studies where group communication is desirable. At this point, the use of such technologies would appear to be perceived as "add-ons" to the program but not essential—reinforcement for the perception that the primary characteristic of what is happening is independent study and not distance education. Therefore there appear to be grounds upon which to recommend that inservice education extend beyond how to use the technologies to their pedagogical applications.

There are probably also grounds to recommend that, where the notion of a distributed classroom is entertained, the model of the "real" classroom be kept in mind. In the "real" classroom there is a middle ground between having all students moving lock-step and having all students working independently to the extend that virtually no two students are in the same place. This middle ground is the use of a (small) number of sub-groups which can accommodate student differences. This same technique can be applied in the "distributed" classroom where students in multiple sites are linked by electronic means. The teleconferencing teacher ought not to have to expect that any two students will be working on the same topic at the same time.

Finally, the logistics associated with using "real-time" technologies like teleconferencing should be directly addressed. There are subject areas which have learning goals that require instantaneous two-way communication more than others. Priority should be given to subjects such as Social Studies, CALM, and language instruction which have such desired learning outcomes, and assistance should be provided to tutor/markers working in those areas to make effective use of the technology. For this to happen effectively, it may also be necessary to increase the ratio of tutor/markers to students in these subject areas.

Recommendations of the Evaluators

1. The Alberta Correspondence School should be encouraged to continue as rapidly as possible with the revision of its materials.

2. Instructionally richer materials and alternate paths through the materials should be developed to aid students who have difficulty.

3. Support materials (audiovisual resources, kits, etc.) should be developed/acquired for those courses which require them.

4. A systematic inservice program should be implemented for personnel directly involved with distance education, focusing on pedagogical techniques appropriate for distance education.

5. The materials used in distance education should be examined for comparability of content and methodology to those of the mainstream curricula.

6. Involvement of local professional staff in the distance education program should be encouraged.

7. Differentiate between the independent study and distributed classroom models of distance education, and for those subject areas for which the distributed classroom model is more appropriate an effort should be made to facilitate it. At the school level this implies making appropriate time-tabling adjustments; at the consortium level it implies re-examining the workload of the tutor/markers and providing appropriate training.

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[1] Clark, W. B. (1989) Bridging the gap between subject methodologies and instructional design in distance education. Unpublished manuscript, The University of Calgary, Department of Curriculum and Instruction, Calgary

3. TECHNOLOGICAL ISSUES

Overview

The second phase of the DLSS Project incorporated four forms of technology to support the instructional and administrative processes: the telefacsimile (FAX), the telephone, teleconferencing, and electronic mail/bulletin board. In comparison to Phase 1, it would appear that in Phase 2 there were fewer problems with FAX machines, that more students did contact the tutor/markers directly, and that the problems associated with scheduling teleconferencing did not subside. While all schools possessed FAX machines, not all of the new schools joining the project in Phase 2 acquired teleconferencing equipment or were equipped to access electronic mail. Table 3.1 indicates the availability of equipment by school. Since nothing materialized with respect to the delivery of instruction via satellite, this element was not considered by the evaluators in the Phase 2 evaluation. Regular mail and courier service were also used in some instances.

FAX Machines

The dominant form of communication among the components of the Project was the FAX machine. In addition to the transmission of student assignments between schools and tutor/markers, the FAX machine seems also to have been heavily relied upon as a means for administrative communication. One might expect over time that this use of the FAX would be reduced in favour of the electronic mail network, given its lower cost, its ease for sending a message to multiple recipients, and its appropriateness as a vehicle for discussion in some subject areas. In this first year in which an electronic mail network was available, however, there remained a general preference for the FAX. As a number of school personnel explained to the evaluators, when a message is sent using a FAX, the sender has some confidence that a piece of paper has rolled out at the other end and will have to be

Table 3.1

Equipment available to schools in Phase 2

School	Phone	FAX	Telecon	EMail
Acme	√	√	√	√
Altario	√	√	√	√
Bassano	√	√		√
Bow Island	√	√		√
Carbon	√	√	√	√
Castor	√	√	√	√
Cessford	√	√	√	√
Cluny	√	√	√	√
Coalhurst	√	√	√	√
Consort	√	√	√	√
Coronation	√	√		√
Delia	√	√	√	√
Duchess	√	√		√
Endiang	√	√	√	√
Foremost	√	√	√	√
Grassy Lake	√	√		
Hussar	√	√	√	√
Irvine	√	√		√
Lomond	√	√	√	√
Manyberries	√	√	√	√
Morrin	√	√	√	√
Nobleford	√	√	√	√
Rosemary	√	√	√	√
Standard	√	√		√
Stirling	√	√		√
Tilley	√	√	√	√
Warner	√	√		√
Youngstown	√	√	√	√

dealt with by the recipient. When one uses electronic mail, one is at the mercy of the recipient to actually sign on to the system and read the awaiting message(s).

In comparison to the evaluation for Phase 1, personnel generally reported many fewer problems with the FAX machine, and hence greater satisfaction. In some cases this was due to upgrading equipment in locations of high use to laser FAX machines which were designed to handle a larger volume than the thermal paper varieties. Reproduction by the laser FAX machines is also superior to that of the thermal variety and where laser FAX machines were used there was less decrement in the quality of reproduction. This is significant not only for the tutor/markers, but also for the students who receive feedback from the tutor/markers on third-generation copies.

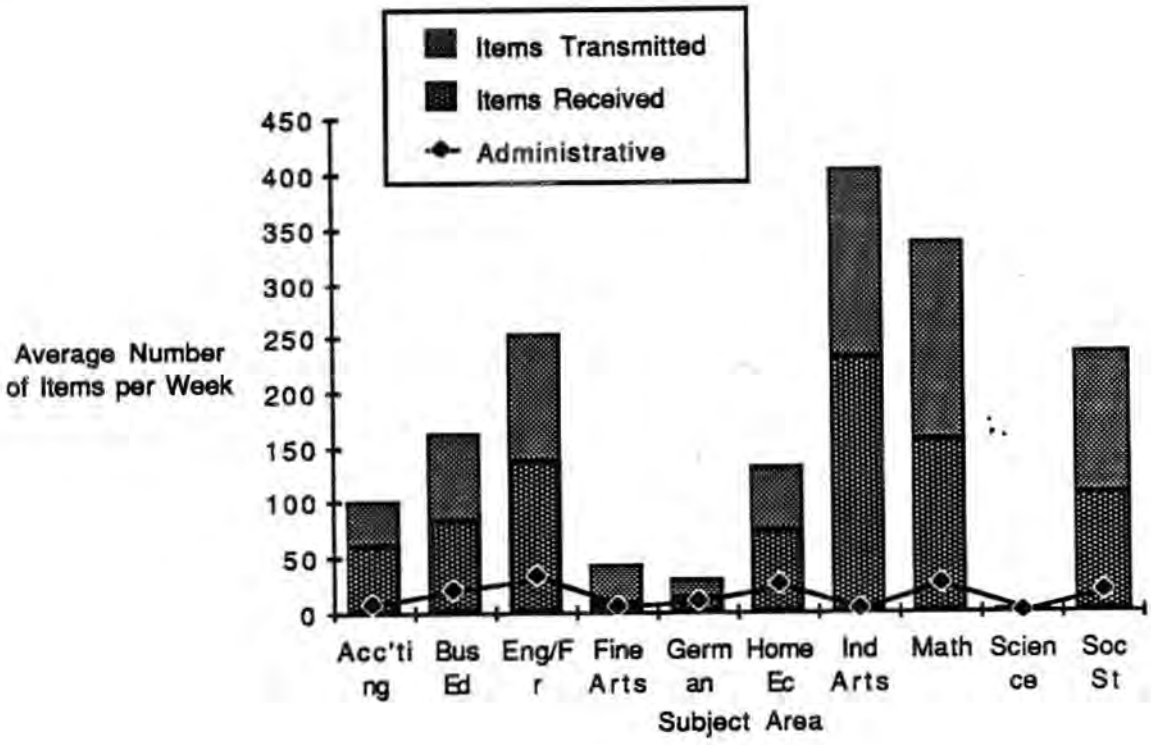
Not only were laser FAX machines introduced in Phase 2, but the limitation to a single brand of equipment was relaxed, and a number of schools installed Canon equipment rather than Pitney Bowes. Since all equipment observed the G3 standard, this posed no problem, although one school noted that transmission was somewhat slower when passing between different brands of equipment because the high speed protocols developed by manufacturers for use between their own machines could not be employed. An idiosyncrasy of one model of Canon FAX machine which was installed in a number of schools was the fact that it automatically dumped memory after three unsuccessful tries dialing a destination.

Project personnel continued in Phase 2 to be plagued by power outages and surges which seem a fact of life in rural areas. Virtually all schools reported this problem at one time or another during the year. Besides being annoying, it wastes personnel time and often requires reprogramming the machine.

During the times when they were requested to keep logs, tutor/markers recorded the number of FAX transmissions, incoming and outgoing, and the total number of items transmitted. As well they were asked to identify separately the number of items which were of an administrative nature rather that student work. Analysis of the logs reveals that the major traffic in FAX transmissions consisted of student assignments, comment sheets, tests, schedules, and inter-school memos. Figure 3.1 shows the average number of items received and transmitted per week during the five weeks for which logs were kept. The number of items of an administrative nature is represented by a line chart overlaying the bars. Only one log was kept by the Science tutor marker and it did not report the number

of items. During that time period the Science tutor/marker recorded a weekly average of 41 transmissions incoming and 62 transmissions outgoing.

Figure 3.1
Weekly average number of items FAXed to and from tutor/markers during period of logs



In each case the FAXing workload corresponds closely to the number of students registered in the subjects. The notable exceptions are Home Economics and Fine Arts where many assignments are of a project nature and result in products which cannot be FAXed. Even in these cases the FAX was heavily used for transmitting textual material.

In terms of evaluative comments received during the interviews, the quality of FAXed materials was judged by 333 of the students interviewed (77%) to be satisfactory. The four issues which were raised by students critical of the FAX machine were: (1) smudged paper, unreadable writing (presumably due to quality of transmission), and

wrinkled paper. Those who were directly involved with transmission in the schools (coordinators, aides, and interns) reported occasional assignments which seem to have disappeared between source and receiver, and again noted that an excess amount of paper is being transmitted because of the format of the Alberta Correspondence School materials being used. This was alleviated somewhat over the experience in Phase 1 as several tutor/markers moved to the use of answer sheets rather than transmitting entire booklets. As ACS continues to update its products with FAX transmission in mind, this problem will grow less and less. The other major source of complaint received about the FAX machines was associated with the effect of power surges and outages (noted above) and with the penchant of some FAX machines for dumping the memory after three unsuccessful tries at transmission.

On the whole, the evaluators feel that the portion of the DLSS Project which depended on FAX machines ran considerably more smoothly in Phase 2 than in Phase 1.

Telephone

During the evaluation of Phase 1 of the DLSS Project, it was observed that most of the telephone contact was among adults involved in the project. Students generally were not in direct telephone contact with tutor/markers. The evaluators were curious to see in Phase 2 whether the amount of telephone contact between students and tutor/markers increased; also to see the comparative usage of telephone and electronic mail for communication purposes. Figure 3.2 compares the number of contacts by telephone with the number by electronic mail and one can see that in Phase 2, the telephone was definitely preferred. That is not unexpected given that the electronic mail system was just being introduced and not all locations were equipped to take advantage of it.

If one examines Figure 3.3, one notes that during the period in which the logs were kept, somewhat fewer than one third of the calls were direct contact with students. This is higher than was noted in the evaluation of Phase 1, but still suggests that most of the direct contact with tutor/markers other than through the FAX machines is made by other adults.

Figure 3.2

Comparison of tutor/marker/telephone use with EMail use.

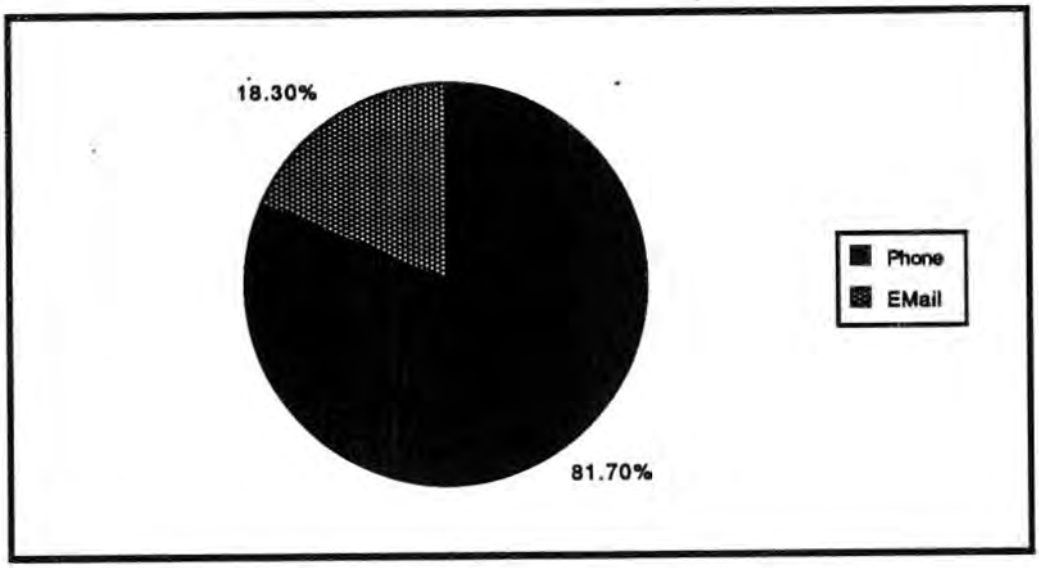


Figure 3.3

Division of tutor/marker telephone/EMail contacts by audience

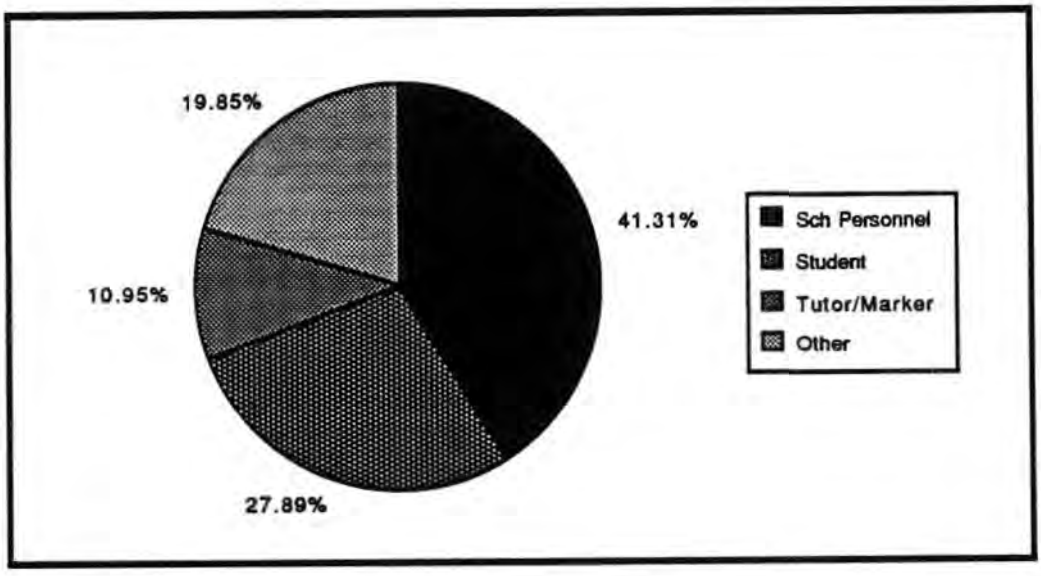


Figure 3.4 which follows shows the breakout of telephone/EMail contacts with tutor/markers by location. Because of the visual scaling of this figure and the fact that schools have different numbers of students participating in the the project, one must be careful not to exaggerate the differences among locations—the range is between 5 and 54. About the most that one can conclude is that some schools do contact tutor/markers by phone and/or EMail considerably more often than others. It is interesting to note that the number of telephone/EMail contacts between schools and tutor/markers correlated R=0.5 with the number of students from each school enrolled in distance education courses; i.e., only 25% of the variance in telephone/EMail contacts is explained by the size of the school population enrolled in distance education.

Telephone contact was generally made for one of the following purposes:

- Checking on student assignments, late assignment, missing pages, etc.
- Conferencing in regard to student difficulties and clarifying feedback on assignments
- Arranging test/examination schedules
- Problems related to Correspondence School materials
- Suggestions for dealing with organizational problems
- Tutoring students when serious problems were noted
- Counselling for students with problems due to illness, etc.
- Dealing with problems encountered in FAXing materials

In total 220 (51%) of students interviewed indicated that they had initiated contact with their tutor/markers at least once during the year. Table 3.2 indicates the number of students who elected to use each type of communications medium when initiating contact with the tutor/markers. The primary purpose for making contact was reported to be seeking assistance with course materials (94%) and looking for advice on other matters (6%). Eighty-eight percent of these, incidentally, indicated that they had received the help they were after.

Table 3.2

Selection of communications media to contact tutor/markers as reported by students

Medium	No of Students
Telephone	188
FAX	95
EMail	10

While the number of students who initiated contact with a tutor/marker at least once during the year increased over Phase 1, most of the telephone contact initiated at the schools was initiated by adults. Table 3.3 indicates the percentages of calls initiated by categories of individuals as estimated in the interviews with the tutor/markers.

Table 3.3

Estimates of percentage of calls initiated by school-based individuals

Category	Percentage
Coordinators/Principal Coordinators	80%
Principals	15%
Students	5%

During the logging periods, only two tutor/markers reported more direct contact with students than with school personnel: German (where the telephone was normally used for the oral language component on an individual basis), and Industrial Arts. One must be careful about the interpretation which one places upon the volume of direct phone contact between students and tutor/markers. It is on the one hand a bit disappointing that only

about half the participating students sought to contact the tutor/markers other than by FAX. On the other hand students generally did not indicate that they were prevented from making direct contact with the tutor/markers if they so desired. The exceptions were schools which were being very cost-conscious and desired to control for long-distance charges. In such cases school personnel tended to engineer events so that the tutor/marker would initiate the call, thereby having the long distance charges borne by the tutor/marker budget. There were also differences of opinion expressed among tutor/markers about the effectiveness of telephone tutoring. The Social Studies tutor/marker, on the one hand, felt that more students should be phoning for help, as did the Industrial Arts tutor/marker. In contrast both the Fine Arts and Home Economics tutor/markers noted that often the telephone was an inappropriate means of communication for them because of the visual nature of many of the problems with which they had to deal.

The only areas in which consistent frustration was expressed concerning the use of the telephone to contact tutor/markers were Science and Mathematics. The arrangements for providing tutor/marking services in Mathematics are dealt with in detail elsewhere (see Chapter 4). Briefly several math teachers in high schools in the district supplying the math tutor/markers were assigned to math tutor/marking as part of their regular teaching load. As a result they were often not available for contacting by phone at the time of immediate need. For example, times when some of these tutor/markers were available were often in the morning before school buses in some other schools had arrived.

A variation on the use of the telephone which was included for a trial period in Rosemary School to link that school with the English/French tutor/marker was the videophone. This device combines a regular telephone with the capacity to transmit and display a slowscan video image. The advantage is that it does permit users to see a still picture of the person with whom they are communicating or to send a still image of some other object. The disadvantage with slowscan imaging is that it does not permit transmission of real-time motion and therefore has limited use. For this reason use of the videophone in the project was discontinued after the trial period. As telephone lines in the province are replaced with optical cable, more sophisticated equipment now coming on the market which does permit transmission of real-time video may make the videophone a more useful device in the future.

Teleconferencing

This technology, though judged to be effective by project personnel, was relatively seldom used. Actual teleconferences were conducted by only four tutor/markers: English/French, Business Education, Social Studies and Mathematics. It would appear that, as was the case in Phase 1, the greatest barriers were the individual school time tables where principals were reluctant to remove students from regular classes for teleconferences. This problem was compounded in Phase 2 by the increase in the number of schools. In the absence of some form of inter-school scheduling this will continue to be a major impediment to greater adoption of this technology. Alternately, it argues for a "small cluster" model as opposed to a "wide-area" model as addressed in Chapter 1 of this report. Also, not all of the schools which joined the project in Phase 2 acquired teleconferencing convenors. Some of the latter did have students participating in teleconferencing, however, by allowing them to use speaker phones or existing telephone extensions in the school.

Teleconferencing was used primarily in the presentation of new material, the review of previously covered material, the discussion of possible solutions to problems, and the practice of pronunciation and vocabulary. There was a general perception among the tutor/markers who tried teleconferencing on a more or less routine basis that, when it was taken seriously, it not only improved learning but assisted in motivating students. Tutor/markers who had not tried teleconferencing generally felt that the strategy would be useful for remedial instruction, review, and components of language instruction. They tended to explain not using teleconferencing by pointing to their lack of familiarity with the technique and the scheduling problems that hindered its use.

Those tutor/markers who did use teleconferencing did voice some complaints:

- There was sometimes too much background noise when the regular classroom was used for teleconferencing.
- Distance education periods were often unsupervised during the teleconferencing session.
- Students were not familiar enough with the use of the system.
- Students responded too slowly when called upon.
- Teleconferencing sessions were not taken seriously enough by the schools.

Of the students interviewed, 80 (18%) reported having participated in at least one teleconferencing session. Sixty-five indicated that they were comfortable talking to a tutor/marker and other students. Those who indicated that they were ill at ease cited factors such as intimidation, too many interruptions, preference for one-on-one telephone conversations, and the need for a face to speak to, as their reasons. The courses in which the students reported participating in teleconferencing included:

Accounting 10	Math 30
Accounting 20	Math 31
Chemistry 20	Math 33
French 10	Personal Psychology
French 20	Shorthand
General Psychology	Social Studies 20
Industrial Education	Sociology 20
Math 23	Science 11

Electronic Mail/Bulletin Board

A technology introduced to the project in Phase 2 was electronic mail and electronic bulletin board. Both employ a host computer as a device for sending messages from one computer to another. In the case of electronic mail the messages are private and cannot be read by other than the intended recipient. In the case of electronic bulletin boards the messages are public to all who are authorized to read that bulletin board. The ASPEN (Alberta Special Education Network) system was adopted as the host computer. Communication cards and modems were added to microcomputers in the schools to give them data communication capabilities. Besides the electronic mail facility, bulletin boards were established for each subject area and for common concerns of special interest groups such as tutor/markers. The ASPEN system operates using an "800" phone number, so data transmission costs are not borne by the user school. The advantage to electronic mail systems is that the intended recipients need not be available at the time a message is sent—they can dial in at their convenience to read and respond to messages. This same fact was perceived by many in the project as a disadvantage in that they were at the mercy of the intended recipients actually dialing ASPEN and reading their messages. In contrast, the

FAX machine churns out paper which is more apt to catch the recipient's attention. Also the FAX machine easily handles handwritten notes, mathematical symbols, diagrams, and the like—to date a restriction on electronic mail which is generally limited to the ASCII character set and requires some level of comfort in typing skills for efficiency.

The evaluators had access to the bulletin boards (except for private ones) which were set up on the ASPEN system for the project. They also could use the network to send and receive messages, but obviously did not have access to private communications of the mail function to judge volume of use. At the time of writing this report ASPEN audit trail techniques do not provide data which permit analysis of traffic on the DLSS segment of the system. Consequently the evaluators must rely upon information provided by the users. Examination of the electronic bulletin board indicated limited use during Phase 2, and the verbal reports of those interviewed indicated that, with a small number of exceptions (Rosemary, for example), the use of electronic mail was also limited. The reasons cited by coordinators and interns were those disadvantages of electronic mail noted above, in particular lack of confidence that the messages would actually be read. This can partially be explained by the fact that users were gradually brought on to the system during the year, so that there was insufficient time for the use of the technology to become established. Since electronic messaging does provide a convenient means for communication, and since it also offers a useful device for supporting some content areas, the evaluators would encourage those in the project not to give upon on the technique prematurely. This opinion was supported by 24 of the 28 local coordinators interviewed.

One additional factor which was pointed out to the evaluators was the fact that only one student can use the EMail system at a time. Where there are many students involved, this can result in a queue of users. In contrast all students can write their messages on pieces of paper and these can be batched for FAX transmission.

There are three other observations which the evaluators would make about the system. First, the visual display for electronic mail which appears using the ProTerm communications package with the Apple //e series computers is often hard to read because of the low resolution of some monitors use with this computer system. When 80 columns of text are displayed in reverse video, the resulting display is very difficult to read. If normal rather than reverse video is an option with this package, school personnel responsible for setting the parameters on the communications package should be told how to reset the parameters. A second observation is that ASPEN itself has at least one

idiosyncrasy which its operators should address. The use of the *delete* command after a reply is sent to a message deletes the reply rather than the original message. The final observation is that a number of users complained that they were cut off by ASPEN while using the system. This can be explained as a combination of factors ranging from problems with ASPEN itself to noisy phone lines in rural areas.

Twenty-four students reported they had used the ASPEN system and of these nine regarded it as successful. The generality which one would offer about the EMail system based on data gathered during the evaluation is that it is very much in an embryonic stage in the DLSS Project and faces stiff competition from the FAX machine which has been tried and proven.

Mail and Courier Services

In Phase 1 certain tutor/markers and schools found it necessary to institute a courier system in order to have effective and efficient delivery of student assignments and projects. This was necessitated by those instances where students assignments and/or projects were oversized, colour-dependent, or three dimensional (Fine Art, Industrial Arts, Home Economics). As well there were occasions when the FAX machines in various schools were not operating satisfactorily so individual tutor/markers and school coordinators established alternative means of delivery. Such use of mail and courier services continued in Phase 2. In Phase 2 also, the evaluators noted that regular informal courier services were initiated where there could be financial and time savings. For example, student assignments from Standard and Hussar were delivered to the English/French tutor/marker who lives in Strathmore, rather than being FAXed.

Recommendations of the Evaluators

1. The trend toward FAXing answer sheets rather than whole instructional booklets should be encouraged.

2. A guide about what to look for when purchasing equipment and matching it to anticipated needs should be prepared for the guidance of those who will be acquiring it for the first time.

3. A program should be developed for introducing newcomers to such technologies as electronic mail which not only teaches them how to use it, but provides them with incentive to continue using it until the use becomes habitual.

4. Tutor/markers should be encouraged to formally incorporate such communication technologies as electronic bulletin boards and teleconferencing into the teaching methodology of their courses wherever discussion among students is appropriate.

4. ADMINISTRATIVE ISSUES

Overview

Evaluation of the administration of Phase 2 of the DLSS Project can be approached from four perspectives: (1) the perspective of the overall project with particular attention to the functioning of the Project Office, (2) the perspective of individual schools with particular attention to deployment of personnel and management procedures, (3) the perspective of the tutor/markers with particular attention to their deployment, functions, and management procedures, and (4) matters which overlap these categories.

The Project Perspective

Phase 2 of the DLSS Project saw an additional 15 schools involved in the project on their own initiative. The 13 schools continuing from Phase 1 continued to receive financial support from the Project Office as they did in Phase 1. Schools joining the project in Phase 2 were expected to pick up all their own operating costs plus install at least a FAX machine, and preferably acquire teleconferencing equipment. The tutor/marking services for the new schools, however, were picked up through the arrangements already in place, though this did mean a heavier workload for the tutor/markers and in the case of mathematics and business education, more personnel were required than in Phase 1.

The addition of the new schools to the project generally was not warmly received by the 13 schools from Phase 1. It was the perception of the schools which participated in Phase 1 that they had learned a lot from their experience and would have liked Phase 2 to consolidate their operations and particularly to see if the role of the tutor/markers could be shifted away from predominantly marking to more tutoring. With the additional student load on the tutor/markers the potential for tutor/markers to significantly increase the amount of time they spent tutoring disappeared. Two of the original schools also expressed a

perception that they would have liked to see expansion of the project moved down into their Junior High classes rather than spread more broadly over more schools. Superintendents who did not have new schools in Phase 2 felt that the rapid expansion had reduced initiative and focus in the project.

The evaluators concur that the addition of more schools did preclude the possibility of any extensive restructuring of the tutor/marker roles, and the actual implementation of the project in Phase 2 looked very much like it did in Phase 1 with the exception that most of the schools from Phase 1 which had rather "loose" student management systems last year introduced much tighter controls in Phase 2—better tracking systems, scheduled distance education periods, etc. It would appear that many of the schools which joined the project in Phase 2 experienced a learning curve equivalent to that experienced in the original 13 schools in Phase 1. Many reported that they had under-estimated the level of support necessary to make this approach to education to work. By the time the evaluators visited the schools toward the end of the second term, however, most of the new schools had adopted approaches which were akin to those adopted in the Phase 1 schools. The fact that the participating districts had to provide full funding for these new schools resulted in some of them considering alternative staffing and support patterns from those employed in the schools receiving financial aid from the Project Office. Some of these proved to be very effective and will be dealt with below when local administrative issues are addressed.

The Project Office itself functioned smoothly during Phase 2. An additional staff member, Gerald Logan, was added with primary responsibility for setting up the electronic mail and electronic bulletin board system and providing inservice to the project participants in their use. It is the sense of the evaluators that the increase in the size of the project also placed additional pressures on the Project Office. In a small number of schools the evaluators were told that they would have liked to have been visited by the Project Office more frequently. On the other hand most principals and coordinators indicated that help was always available when they asked for it and were complimentary about the assistance which they received. Seven of 11 superintendents interviewed indicated that project leadership was satisfactory. Criticisms about the project leadership cited lack of information sharing and confusion over lines of authority. It was also noted that the time lines for project meetings were too short. During the year the Project Office also took on projects intended to enhance the operation of the project and reduce the learning curve for schools embarking on distance education. The introduction of the electronic mail system

has already been noted. Another significant effort was the development of a policy and procedures handbook for distance education.

School-related Administrative Issues

Table 4.1
Staffing patterns for distance education during Phase 2

School	Coordinator	Principal/ Coordinator	Intern	Aide	Assigned Teachers
Altario	√		√		
Carbon		√	√		
Cessford		√	√		
Cluny		√			
Delia	√		√		
Endiang		√	√		
Hussar		√	√		
Lomond	√	√	√	√	
Manyberries		√		√	
Morrin	√		√		
Rosemary	√		√		
Tilley	√		√		
Youngstown		√			
Acme	√		√	√	
Bassano	√			√	
Bow Island	√	√			
Castor		√		√	
Coalhurst		√			
Consort		√		√	√
Coronation		√			
Duchess	√			√	
Foremost		√			
Grassy Lake		√			
Irvine		√			
Nobleford		√	√		
Standard		√		√	
Stirling	√				√
Warner	√				

Administrative functions performed in the schools included local coordination of the program, supervision, advisement and record-keeping, and tending the FAX machine. With the exception of one school all local coordinators were assigned on a part-time

basis—only Rosemary, as was the case in Phase 1, assigned a senior staff member to a full-time coordinator role. Frequently the principal served also as coordinator on a part-time basis, and all but four of the schools which joined the project in Phase 2 adopted the practice of using a principal/coordinator. In the case of Bow Island, a part-time coordinator replaced the principal/coordinator part way through the year.

Table 4.2

Duties and responsibilities of coordinators

	Fax	Records	Phone	Tutor	Admin	Super-vise	Main-tenance	Other
Altario	√	√	√		√	√	√	
Carbon	√	√		√	√	√		
Cessford		√			√	√		
Cluny	√	√		√		√		
Delia	√							√
Endiang	√	√	√	√	√	√	√	√
Hussar					√	√		√
Lomond	√	√		√				√
Manyberries					√			
Morrin	√				√	√		
Rosemary	√	√	√	√	√	√	√	√
Tilley	√	√	√	√	√	√		√
Youngstown	√	√	√	√	√	√		
Acme	√	√	√	√	√	√	√	√
Bassano	√	√	√			√	√	√
Bow Island	√	√		√				
Castor		√		√	√			
Coalhurst	√	√		√	√	√		√
Consort				√	√	√		
Coronation	√	√			√	√		
Duchess	√	√	√	√		√		
Foremost			√	√	√			√
Grassy Lake	√	√		√	√	√		√
Irvine	√			√	√			√
Nobleford		√		√	√			
Standard	√				√	√	√	
Stirling	√	√	√		√			√
Warner	√	√						√

Coordinators. Coordinators and principal/coordinators who were spending their second year in the role unanimously reported that their school programs ran more smoothly than in Phase 1. The knowledge of registration procedures, the ordering of materials, and the orientation of students resulted in less frustration and fewer problems. Most sources of problems were anticipated and planned for. It seems, however, that many of the critical experiences of schools which had participated in Phase 1 were not communicated to schools joining the project in Phase 2 and the result was a greater learning curve for these schools than might have been the case otherwise. Project personnel in the new schools generally seem to have underestimated the wide range of duties and responsibilities which had to be assumed by someone (and also underestimated the amount of time that was required for duties associated with the FAX machine). After having professional staff performing routine clerical chores in the beginning, a number of new schools modified their approach and either added teacher aides or increased the time allocation for teacher aides already on staff. One school, Warner, made use of work/study students to perform duties associated with the FAX machine. Table 4.2 summarizes functions performed by coordinators at least some of the time across schools.

In 15 of the 28 schools, the principal also served as the distance education coordinator. The reasons generally given for this were availability of staff and financial constraints. In very small schools such as Endiang, there would appear to be no alternative. In schools which are larger and would appear to have more flexibility, the evaluators have some concern that on top of the regular administrative duties the principal assumes time consuming duties associated with registration of students, ordering materials, FAXing, and record-keeping. There are exceptions where the principal doubles as coordinator, but is able to assign the more time-consuming activities to an aide. Consort is a case in point.

In the evaluation of Phase 1, the evaluators expressed concern about the amount of professional time that was often occupied performing essentially clerical tasks such as tending the FAX machine and sorting paper. Two coordinators challenged this position in interviews during Phase 2. The counter-argument which these coordinators offered was that when they handle all the paper themselves, because of their professional background, they are often able to spot problems such as missing work before material is transmitted and can therefore prevent additional problems later. Similarly they are able to identify problems handling incoming transmissions. Other coordinators, however, reported that

assistance with clerical matters would lighten their loads. Generally, though, coordinators reported that the time allocated for performing their tasks was sufficient.

Interns. Where interns were employed in the DLSS Project, the roles varied considerably. It is the evaluators' observation that more professional duties were assigned to interns in Phase 2 than was the case in Phase 1 where often the intern's involvement was restricted largely to FAXing and record-keeping. Table 4.3 indicates the functions performed by the interns in Phase 2 and their personal rank-ordering of these tasks according to time spent.

Table 4.3
Intern duties and rank-order by time spent.

	Tutoring	Records	FAX	Advise-ment	Motiva-tion	Other Class	Mark-ing	Super-vision
Altario	1	5	4	3	6	7		2
Carbon	5	3	2	7	4	1		6
Cessford	5	3	2	7	4	1		6
Cluny	5	4	3	7	6	1		2
Delia	3	2	1	6	4	7		5
Endiang						1		
Hussar	2	4	3	7	6	1		5
Lomond	3	5	4	7	6	1		2
Morrin								
Rosemary	2	4	3	8	7	1	5	6
Tilley	3	5	4	7	6	1		2
Acme	2	4	3	7	5	1		6
Nobleford	2	4	3	6	5	1		

With two exceptions, interns appeared more satisfied with their positions in Phase 2 than did their counterparts in Phase 1. At the same time as they expressed appreciation for the experience, however, many of them felt that what they were expected to do involved

responsibilities which exceeded the amount they were paid as interns. Concern about the use of interns in general has resulted in the Project dropping the intern program following Phase 2. Most coordinators were complimentary about the role played by the interns with which they were associated and noted that their absence from the project in the future would leave a gap which would have to be filled in some other way. This same perception was echoed by both principals and superintendents.

Again in Phase 2 it was noted that interns were often employed who did not have training in secondary education. While coordinators generally tended to urge that the selection criteria for interns should include training in secondary education, one coordinator argued that interns with an elementary school background had better organizational skills to deal with the variety of tasks that were experienced in the distance education program. Where the intern lacked secondary experience, students often commented that they were unable to get the help which they expected from the intern.

Teacher Aides. A difference in staffing patterns between Phases 1 and 2 was the use of teacher aides in a number of schools. Five of the seven schools which employed aides were new to the project in Phase 2 and did not qualify for an intern, but recognized that they needed assistance beyond what could be mustered within their existing staffs. Time allocation for teacher aides varied from 0.2 FTE to full-time with the associated costs being met in a variety of ways. In most cases the District provided additional funds for the aide, but in some schools advantage was taken of various government manpower programs. In the case of Acme both an intern and a part-time aide were employed. (Acme was new to the program in Phase 2, but the District saw fit to employ an intern for the school and to pay all the associated costs.)

The variety of tasks delegated to teacher aides is identified in Table 4.4. One notes that for the most part the aides assumed the clerical work associated with distance education—FAXing, photocopying and record keeping, but extended beyond such activities to become the local contact with the tutor/markers regarding missing pages, missing assignments, and arranging examination schedules. It was the sense of the evaluators that teacher aides were being appropriately employed in the schools and that they served a very valuable purpose, not least of which was freeing professional staff in the schools to concentrate on matters of curriculum and instruction.

Table 4.4
Duties and responsibilities of teacher aides

School	FAXing	Records	Supervision	EMail	Other*
Lomond	√	√			
Manyberries		√	√		
Acme	√	√	√		
Bassano	√	√			
Consort	√	√		√	√
Duchess	√	√	√		√
Standard	√	√			√

* Includes such activities as administrative contacts with tutor/markers.

General Student Support. Moreso than in Phase 1, other members of teaching staffs were involved with distance education students. In many schools it was a general rule of thumb that students were to seek help locally first, and to seek help from the tutor/markers only as a last resort. In contrast also to some schools in Phase 1, this was not a ploy to maintain control of information but rather an acknowledgement that the workload of the tutor/markers was such that they could not expect to do extensive tutoring. As a matter of fact a number of tutor/markers requested this approach. Examples of schools which seem to have made effective use of local staff to assist with the distance education program are Consort and Stirling.

Consort assigned members of the teaching staff to supervise the distance education room as part of their assigned load. Wherever possible students were scheduled into the distance education period when it would be supervised by a teacher familiar with the subject they were taking through distance education. In Stirling each student taking a course through distance education was assigned to a member of the teaching staff who was responsible for monitoring his/her progress and providing assistance. Since the physical facility at Stirling is too crowded to make allocation of a distance education room possible,

the link between a teacher and number of students formalized both the supervision and route for assistance. While not all teachers involved indicated they were comfortable with the arrangement, the results seem to have been positive and the approach warrants consideration. It has the added advantage of getting other teachers in the schools involved in the distance education program.

Tutor/Markers

Information regarding the role of the tutor/marker, the level of their interactions with students and other DLSS project personnel, and the efficacy of various resources was gathered through logs that were kept for three time-periods and through personal interviews. There were 19 tutor/markers in Phase 2, compared to eight in Phase 1. The larger number was mostly the result of assigning tutor/marking responsibilities to a number of mathematics teachers in the County of Newell. As in Phase 1, tutor/markers were appointed under different terms and conditions. Some were full-time, some part time; some were school-based, others were home-based. These distinctions were also true of Phase 1. However, as noted above, the taxonomy was extended in Phase 2 to include "segregated" and "distributed". *Segregated* denotes a tutor/marker responsible for either a whole subject area or a large portion of a subject area encompassing several courses, and for whom this function is independent of school-based teaching assignments; *distributed* denotes the allocation of a subject area to several tutor/markers who were responsible for a small segment of the total subject. As implemented in Phase 2, *distributed* also indicates that tutor/marking was part of a teacher's regular in-school teaching assignment.

There are a number of observations which the evaluators would make about the operation of the tutor/marking component of the project in Phase 2. First, in the areas probed by the evaluators, there seemed to be a greater degree of satisfaction among tutor/markers in Phase 2 than in Phase 1. This seems to have been largely due to the fact that operating procedures which only gradually evolved in Phase 1 were in place for Phase 2. It should be noted, however, that issues associated with salary and work load became matters of negotiation between school boards and the ATA during Phase 2, and thus were removed as areas for investigation by the evaluators.

Table 4.5
Configuration of tutor/markers by subject areas.

	Home	School	Part-	Full-	Segregated *	Distributed **
Accounting	√		√		√	
Business Education	√			√	√	
English/French	√			√	√	
English 2*		√	√		√	
Fine Arts	√		√		√	
German	√		√		√	
Home Ec		√	√		√	
Industrial Arts	√			√	√	
Math		√	√			√
Science	√		√		√	
Social Sciences		√	√		√	
Social Sciences 2*		√	√		√	

* 2 indicates a second tutor/marker responsible for part of the subject area.

* * assigned Math teachers to tutor/markering

A concern of the evaluators in Phase 1 was the amount of time spent by tutor/markers in performing clerical functions, especially tending the FAX machine. In some instances steps were taken in Phase 2 to provide assistance to tutor/markers with heavy loads, for example, the Industrial Arts tutor/marker. The evaluators also noted that additional tutor/markers were engaged in the areas of business education, English, and social studies to address an overload in those areas.

As noted above (see Chapter 2), the addition of 15 more schools to the project in Phase 2 substantially increased the marking load of the tutor/markers, and as a result there was little increase in the amount of time spent by the tutor/markers in direct contact with students—once again they were primarily "markers" and not "tutors". Those who sought to use teleconferencing once again experienced difficulties in scheduling times that were acceptable to the schools involved.

The location of tutor/markers in terms of being either home-based or school-based was a topic which was often raised by administrators interviewed. Generally speaking superintendents and principals expressed preference for tutor/markers being school-based, though they acknowledged the rapid turn-around time of most of those who were home-based. The advantages cited seem to be matters of monitoring and control on the one hand and providing a collegial supportive environment for the tutor/markers on the other. It also would mean that the working hours of the tutor/markers would be a matter of public observation and record. A dissenting opinion expressed by two principals was the fear that full-time tutor/markers who are school based would become readily available substitute teachers in their schools to the detriment of project students. About all the evaluators can say from their observations is that (1) the technologies employed in distance education lend themselves to supporting a distributed network, (2) home-based tutor/markers did not express a need for the collegial support hypothesized to exist were they school-based, and (3) the physical location of the tutor/markers was not a matter of concern expressed by students or coordinators.

It is the sense of the evaluators that a stronger case could be made for centralizing the tutor/markers in one location or a small number of locations where support services (clerical staff, fax machines, teleconferencing facilities) might be used more efficiently. In addition to providing the support services, this might provide a more appropriate forum of collegial support by providing easy opportunity for communication among tutor/markers who, after all, represent a unique segment of the teaching population. What confounds making this judgment is that the option to work out of one's home was part of the original job description of the incumbent tutor/markers. There is likely, therefore, to have been an element of self-selection with some of the incumbents desiring the position because they could work out of their homes.

The issues of concern about tutor/markers expressed to the evaluators at school level had to do with their availability and not their location. Most complaints received by the evaluators focussed on two subject areas: math and mathematics. Slow turn-around time and difficulty in contacting the tutor/marker were frequently cited complaints with respect to math.

In the case of mathematics the difficulties cited tended to be a function of the staffing configuration adopted to provide tutor/marking services in Phase 2. Rather than hiring two individuals to be mathematics tutor/markers for a large portion of their time, the

County of Newell divided the responsibilities among the mathematics teachers in its four high schools. From the superintendent's point of view this makes eminent sense. It provides a way to support distance education using existing staff, and also allows more efficient time allocation of staff within schools. It was, however, an approach which generated a generally negative reaction elsewhere in the Project. Those assigned tutor/marking tasks indicated that the marking load tended to exceed the time allocated, and the approach tended to further entrench the role of the tutor/marker as primarily one of marking. Other schools participating in the project cited their frequent confusion about who was marking what courses, and those acting as tutor/markers in math appear to have changed periodically to adjust to a shifting workload. The fact that the mathematics tutor/markers spent more of their time in regularly scheduled classes meant they were frequently not available to receive telephone calls when staff and students from project schools tried to reach them. Times announced when the tutor/markers would be available sometimes did not match times when students could be free to make calls; for example, before their buses arrived at school. (There is evidence that the mathematics tutor/markers did make a strong effort to return calls when they were free from their teaching duties.)

The evaluators have some sympathy for those who experienced confusion with this arrangement because they too found that the parties changed even between time periods when logs were being kept. While the evaluators are reluctant to categorically suggest that this approach is inappropriate, it would seem that as implemented in Phase 2 in mathematics it was fraught with a number of undesirable side-effects, and should be examined carefully before being undertaken within the wide-area model of distance education. (It would appear to be more appropriate for the small cluster model where the number of students and sites involved is fewer.) Given the fact that expertise in teaching mathematics is normally resident onsite in all schools, one is forced to ask whether or not the tutor/marking system is appropriate in the cases of schools registering a large number of students. This is a subject area which can be supported locally through the use of a CML system. Were more schools to adopt that approach to teaching mathematics, the need for an extensive system of mathematics tutor/markers would be considerably reduced. (In suggesting this approach, however, the evaluators would also recommend that any use of CML-supported mathematics be augmented by review and synthesis activities such as those which the present mathematics tutor/markers have employed.)

As noted above, the workload of the tutor/markers is outside the scope of the Phase 2 evaluation. Table 4.6 reports the number of student credits registered by subject area

and Table 4.7 reports the times logged by tutor/markers during the three periods when logs were kept. These data are reported for information only as they will assist the reader in interpreting time-allocation data which follow in Tables 4.8 and 4.9.

Table 4.6
Number of student credits registered by subject area.

	First Term	Second Term
Business Education	268	649
English/French	397	710
Fine Arts	68	130
German	25	55
Home Economics	99	381
Industrial Arts	290	770
Mathematics	635	770
Science	200	469
Social Sciences	269	315

Table 4.7
Times logged by tutor/markers during logging periods

	Student Credits Second Term[1]	Total Hours	Average Person-Hours/Day[2]
Business Education	552	281.75	11.27
English/French	593	196.15	7.85
Fine Arts	81	65.00	2.60
German	45	32.00	1.28
Home Economics	305	93.50	3.74
Industrial Arts	683	274.00	10.96
Mathematics	880	426.50	17.06
Science[3]	380	--	7.88
Social Sciences	489	276.5	11.06

[1] Registrations minus withdrawals, summed within subject area.
[2] Assuming a five-day week for five weeks.
[3] Data received for one log only.

During the interviews tutor/markers were asked to estimate the portion of their time allocated to tutoring, marking, advisement, development and clerical tasks. The results of those estimates appear in Table 4.8. As the table indicates, between 50 and 80% of the time was allocated to marking, and from 10 to 20% was allocated to tutoring. Since most tutor/markers consider the comments written on assignments as a form of tutoring, the portion of time involved in interactive tutoring with students was very small.

Table 4.8
Percent of time by task as estimated by tutor/markers during interviews.

	Tutoring	Marking	Advisement	Development	Clerical
Business Education	15	60	5	5	15
English/French	10	80	5	5	
Fine Arts	10	50	5	30	5
German	20	50	10	5	15
Home Economics	10	50	5	30	5
Industrial Arts	10	65	5	15	5
Mathematics	20	50	5	15	10
Science[1]					
Social Sciences	10	60	5	15	10

[1] Data not available.

Table 4.9 summarizes the average hours per week spent by the tutor/markers during the five weeks when logs were kept. The breakout of tasks used in the logs was more refined than that used during the interviews to elicit estimates of the proportions of time spent. In both cases it should be noted that where more than one tutor/marker was involved in a subject area, data gathered were collapsed to provide a total for the subject area.

Table 4.9

Weekly average time in hours as logged by Tutor/Markers.

	Bus Ed	Eng/Fr	Fine Arts	German	Home Ec
Marking	27.15	31.00	5.35	2.65	9.58
Tutoring	3.92	1.83	0.75	0.38	0.45
Advisement	1.58	0.60	0.20	0.00	0.63
Record Keeping	5.38	0.10	1.30	0.75	1.20
Teleconferencing	0.00	1.65	0.10	0.00	0.00
FAX Transmission	8.45	0.23	0.80	0.80	2.05
FAX re-transmission	0.54	0.05	0.15	0.02	1.05
Consultation	1.08	0.28	0.25	0.05	0.65
Prep: Student Materials	8.88	0.00	1.90	0.40	1.30
Prep: Teleconferencing	0.00	0.88	0.10	0.00	0.00
Prep: Test Construction	1.07	0.27	1.00	0.10	0.30
Other	4.39	2.45	1.10	1.35	1.35
TOTAL	62.41	39.35	13.00	6.50	18.57
Average hrs/day[1]	12.48	7.87	2.60	1.30	3.71

	Ind Arts	Math	Science	Soc Stud
Marking	31.65	52.13	22.50	33.25
Tutoring	3.90	10.98	2.25	4.90
Advisement	0.00	1.05	0.00	0.55
Record Keeping	8.90	11.03	3.17	3.82
Teleconferencing	0.10	0.00	0.00	0.10
FAX Transmission	8.25	11.77	5.50	4.28
FAX re-transmission	0.10	2.52	0.75	0.53
Consultation	0.00	0.97	1.00	0.60
Prep: Student Materials	0.00	2.58	0.75	1.40
Prep: Teleconferencing	0.00	0.00	0.00	0.00
Prep: Test Construction	0.00	0.85	3.50	1.45
Other	2.10	11.32	0.00	4.38
TOTAL	55.00	105.21	39.42	55.27
Average hrs/day[1]	11.00	21.04	7.88	11.05

[1] Assumes a 5-day week.

Other Administrative Matters

There are a number of topics which cross levels of administration that require consideration.

Relation between Tutor/Markers and Schools. The first such topic is the ground rules which govern the relationship between the tutor/markers and the schools. These were better drawn in Phase 2 than in Phase 1. At the beginning of Phase 2 the tutor/markers made explicit their expectations and as a result the management systems put in place in the schools were able to accommodate them. It is still not clear what purpose is served by assigning a portion of a student's mark locally, but the practice continues and is probably not a matter of great consequence, though several tutor/markers commented that they were uncomfortable with inconsistency in grading and weighting marks across schools.

Of more consequence, however, are the policies under which students may be dropped from a course. A position taken by several tutor/markers was that after a fixed number of assignment dates was missed, the student was automatically dropped from the course. This approach generally supports the orderly progression of cohorts of students through a course. However, one must ask whether under the school act a student can be dropped from a course independently of the local authorities in the school which s/he attends. There were, incidentally, during Phase 2 cases when students missed a number of assignments due to mitigating circumstances and were dropped from a course, only to be reinstated after the facts became known to all parties concerned. This suggests there is a need to further clarify the lines of responsibility and authority between the tutor/markers and schools, and also for keeping lines of communication open.

Scheduling for Real-time Delivery. The evaluators again noted the problems surrounding scheduling for real-time delivery, in particular for teleconferencing. It remains difficult to schedule such events when they involve several schools given the variety of time tables across the schools. If one were to project a trend at this point, one would suspect that the use of interactive technologies like teleconferencing will decrease rather than increase. This situation is probably indicative of inherent tension between the nature of independent study which underlies distance education and of the Carnegie unit which is the basis for scheduling the rest of the school. It may also indicate that, at this point, the advantages of interactive distance education are not perceived to outweigh the disadvantages.

Acquisition of Supplies. Though it occurred less frequently in Phase 2 than in Phase 1, there were still instances in which materials should have been ordered but were not because local coordinators were not aware that a course required them. To overcome this it is recommended that a single comprehensive listing of necessary support materials for courses be compiled and made available to the schools. One might extend this to suggest also that, wherever possible, acquisition of such materials require "one-stop shopping".

Accuracy in Communication. A number of separate incidents during the Phase 2 evaluation taken together cause the evaluators to issue a note of caution that care must be exercised to make communications clear and to avoid building false expectations. For example, one school district joined the project in Phase 2 believing that it had been told that the per-full-time-student equivalent cost for Phase 1 would be the total cost of distance education for all the students in the school. In another instance the evaluators found that a version of the implementation of the CML system in Project North was circulating among project schools which would create unwarranted expectations for the efficacy of a CML system. Many schools were led to believe that they would be able to take advantage of a satellite French program, and that was cancelled. Episodes such as these one would rather forget. Nevertheless, before burying them, there is a need to remind all levels of administration in the Small Schools Project that false expectations created and crushed ultimately breed disillusionment and cynicism. Therefore the evaluators would suggest that care be taken in all communications to make sure they are accurate, that realistic deadlines be set for developing and implementing new products and systems, and that at least the Beta-testing of products be completed before availability dates are announced.

Recommendations of the Evaluators

1. The Project should decide whether or not it does wish tutoring services in addition to marking services from the tutor/markers, and if it does, it should determine the level of tutoring services required by subject area, and adjust the workloads to accommodate them.

2. When an interactive technology such as teleconferencing is required to achieve the instructional goals of a course, schools should accommodate the need for students enrolled in these courses to participate.

rephrasing needed

- Centralizing tutor/marks → beneficial – work-load

3. Consultation should take place between a tutor/marker and the school involved prior to the tutor/marker taking disciplinary action against a student for assignments not received.

4. Documentation on the costs and support requirements for distance education programs should be made available to schools who are considering embarking on this approach to education. (This has been at least partially addressed through the production of the Distance Education Handbook by the Project Office).

5. Realistic deadlines should be set for product and program development, and products should actually exist before availability dates are announced.

5. MISCELLANEOUS IMPACTS

This chapter will deal with a number of issues which might generally be placed under the heading of impacts of the project. Some of the topics might well have been considered elsewhere in the report but it made sense to the evaluators to consider them together at this point, and prior to the cost effectiveness analysis.

Impact on Course Offerings

As noted in Chapter 2, students registered in 74 courses through the DLSS project during 1988-89. The evaluators were curious to know how the number of courses available to students through the DLSS project compared to the number available in other rural high schools in Alberta. A listing of course offerings in schools excluding those participating in the project was generated for 1987-88 by Alberta Education, and the total list of offerings was compared with the offerings to DLSS students in 1988-89. (This differs from the procedure during Phase 1 where large urban schools were also considered.) The list of DLSS courses was found to compare favorably with the total list.

Courses which were available in a small number of rural schools which did not appear on the DLSS list include:

Automotives 22 ABC, 32 ABC
Beauty Culture 22 ABC, 32ABC
Drafting 20, 34
Electronics 22ABC, 32ABC
Industrial Arts 20, 30
Machine Shop 22ABC, 32ABC
Welding 12, 22ABC, 32ABC
Computer Processing 10, 20, 30
Cultural & Physical Anthropology 30
Dictatyping 20
Drama 10, 20, 30
Local & Canadian Geography 20
Music 11, 21, 31
Office Procedures 20, 30
Origins of Western Philosophy 30
Shorthand 20
Visual Communication 12
Word Processing 30

If one examines the column on the left, one finds courses which require special industrial arts and beauty culture facilities. Removing these on practical grounds, one is left with only a small list of courses available in one or more rural high schools that were not available through the DLSS project, though both music and computer processing were taught locally in a number of project schools. The issue of lab dependent courses remains a matter of concern. Students registered in Industrial Arts 10 did express the desire to be able to take additional Industrial Arts courses including welding. There is need to consider the degree to which such courses could be made available through distance learning before students had to relocate in a school with the specialized facilities. The notion of a portable lab was considered during Phase 1 and it appears desirable to explore this possibility further in tandem with exploring an appropriate Industrial Arts curriculum for distance education.

Retention of Students

One of the claims made by personnel at all levels of the Small Schools Project was that the introduction of distance education courses has made a substantial impact on the school populations by retaining in school many who would otherwise quit. In most schools visited by the evaluators stories were told of individuals who either would have left school and didn't or who had left school but were able to come back and finish thanks to distance education. The evaluators concur that this is a real and positive outcome of the DLSS Project. Of the 435 students interviewed, 11 stated that they would have quit school had it not been for the distance education courses. Another 5 said they would have got a job (the protocols are not clear whether they would also have quit school). Of the remainder, four indicated they would have opted for a work experience program, 205 would have had additional spare periods, 155 would have taken another course in the school, 29 would have taken correspondence courses, and another 11 would have transferred to another school. Of the total number of students interviewed, then, potentially 27 would have been lost to their present schools had it not been for the program.

Retention of Schools

There is a general perception among the administrators that distance education offers small schools a chance to remain open in the face of declining rural populations. A question posed for the evaluators during the Phase 2 evaluation was to find out whether or not school boards would be willing to commit themselves financially to continuing the project after Phase 3 was finished and the project as such was discontinued. At the same time as the evaluators were conducting the interviews, however, the discontinuation of the Project was announced along with the new provincial formula for supporting Distance Education. A widespread interpretation of the formula was that many of the participating schools would receive less support under the new formula than through the project. Further, they felt caught on very short notice having to make alternate arrangements for the coming school year. As a result, the atmosphere was somewhat emotionally charged, and the evaluators did not feel that they could draw any reliable conclusions about the will of the boards to continue the project.

Impact on Career and Post-secondary Choices

There is no information available at this point from which to draw conclusions about the impact of distance education on career and post-secondary choices. However, it might be a useful exercise to track at least one cohort of students who took distance education courses to find out what, if any, impact it had after they finished school. (Conceivably in a number of cases the impact may be that the student finished school.)

A related question, however, is how students taking courses through distance education performed on departmental exams. During Phase 1 too few students wrote departmental exams to analyze the results. In Phase 2, schools reported that 68 students wrote departmental examinations, and of these, 59 (87%) passed. While it seemed desirable to compare the completion rate of students in the DLSS project with students enrolled in other rural high schools, this was not possible because the data received from Alberta Education do not reflect course withdrawals and additions, only the number of completions and original number of registrations. There is a rather large number of cases in which the number of course completions exceeds the number of registrations.

Another related question which has been foreshadowed in Chapter 2 is whether there is a satisfactory comparison between the curriculum goals, content, and methodology of the distance education courses and of the mainstream curriculum taught in "regular" classes. Very few of those interviewed raised this question, though one French teacher noted that he was curious to see how students who have taken French 10 through Distance Education will fare when they enter his French 20 class. In several schools, the benefit of offering distance education courses was attributed to the credits received by students, not the educational experience itself. An incidental benefit identified was that students learned to work independently.

Impact on School Libraries

While directly affecting school libaries was not a goal of the DLSS Project, one might expect that the holding of schools libraries would increase as supplementary resources were acquired to assist students working indpendently. The was little evidence in Phase 2 of any impact upon school libraries.

Recommendations of the Evaluators

The following recommendations are somewhat grandiose in the context of a three year project embarking on its third year. However, they do arise from the analysis of the project and are offered in the context of distance education having been adopted on a provincial basis in secondary education.

1. Lab dependent courses should be reviewed, particularly in the areas of Industrial Arts, Beauty Culture and Computer Processing, to see if more such courses can be offered through distance education.

2. Courses taught through Distance Education should be examined for curricular fit to the mainstream curriculum of the Province, and where serious discrepancies are noted, the distance education curriculum should be revised.

3. New course development for high schools should include the development of a distance education version which parallels the course to be taught in the regular classroom.

6. COST EFFECTIVENESS ANALYSIS

Background

Cost effectiveness analysis is a technique for comparing two or more approaches to achieving certain goals through the analysis of two variables: costs and effectiveness. Technically this permits the selection of some optimal combination of program cost and quality/quantity of outcomes. The evaluation of the DLSS project has not thus far addressed a comparative analysis of the quality of the courses being offered (with the exception of certain courses for which the available materials were judged inappropriate and were not offered in Phase 2). During the Phase 1 evaluation, the number of courses offered was accepted as the measure of effectiveness, and the total number offered by combining the number of courses taught locally with the number available through the DLSS project was adopted as the standard for effectiveness. Against the cost for meeting this standard through the DLSS Project, the costs of meeting it through more traditional models was compared. In short, the analysis is more of a *cost* analysis without the *effectiveness* analysis. Elsewhere in this report (see above pp. 27 and 64), it has been recommended that the instructional content of the distance education courses be examined for fit to the Provincial curriculum and such an analysis should produce the data necessary for an effectiveness analysis.

The cost analysis approach used during the evaluation of Phase 1 was also used during Phase 2. There were, however, differences in circumstances between the two phases which made the continued use of the costing model adopted in Phase 1 inappropriate for Phase 2. In particular, costing information for all of the life cycles phases customarily adopted in a cost effectiveness analysis (a) was not available and (b) is not normally employed in determining per student costs in education. Also, some of the cost centres which were identified in the Phase 1 study actually produced no costs and were dropped from the model. Finally, whereas in Phase 1 the evaluators had access to most of the costs associated with the project because they were charged back to the Project Office,

in Phase 2, many of the costs associated with the 15 schools which entered the project during that Phase were not charged back, nor was there an accounting which could be made available to the evaluators. Consequently it was necessary for the evaluators to generate estimates of these unreported costs in order to arrive at a estimate of the actual cost of the project during Phase 2.

There are at least three reasons for conducting the cost analysis. First it serves to satisfy curiosity about how much it cost to deliver courses using the wide-area distance education techniques employed in the DLSS Project. If the measure of effectiveness is held constant, it also permits the opportunity to compare the cost of this methodology with other methodologies, both traditional education and other forms of distance education. Finally, it provides some guidance to schools and districts planning to embark upon distance education as to the costs for which to plan.

Finally, the evaluators would caution that a cost effectiveness analysis does not constitute an audit of the financial records of a project. The evaluators are basing their numbers upon those which have been provided by the Project Office and upon extrapolation of those numbers to provide estimates of data which could not be provided by the Project Office. No attempt has been made to compare the records of the Project Office with invoices and receipts in order to provide verification—that is the role of an auditor. (The assumptions which undergirded the costs estimates which were made will be made explicit below when those figures are introduced.)

Changes from the Phase 1 Cost Model

Before addressing the costs of Phase 2, it is appropriate to identify how the cost model has been changed from that which was developed and used in the evaluation of Phase 1. The elements of the Phase 1 model appear as Figure 6.1.

Table 6.1
Elements of the Phase 1 cost model.

Life Cycle Phases	Cost Centres	Cost Categories
Design	ACCESS	Supplies/Services
Capitalization	Correspondence School	Personnel
Operation	Project Office	Administration
Maintenance	Districts	
	Schools	
	Tutor/Markers	

The traditional life cycle phases for a cost effectiveness model are design, capitalization, operation, and maintenance. During Phase 1, no design or maintenance costs were reported by the project. It is not customary in Alberta for the front-end costs associated with the development of materials to be included in calculating the per pupil cost of delivering instruction. This means, for example, that the costs associated with the design of new Correspondence School materials would not be included in the costs of the DLSS Project. Since there is the desire to compare costs associated with distance education to those associated with traditional education, it seems unfair to include development and production costs in the one which are not included in the other. Hence in Phase 2, the design phase was dropped from the model. In terms of the maintenance life cycle, there have been no maintenance costs reported independently of operating costs in either Phase 1 or Phase 2. Since any expenditures associated with maintenance have not been reported separately, it was judged appropriate to drop separate consideration of maintenance and assume it is incorporated in the operating costs. (On the equipment used during Phase 1 and 2, maintenance costs would be so low at any rate that they would not make any appreciable difference in overall cost determination.)

In the same way that two of the life cycle phases were judged extraneous to the calculations at hand, so also several cost centres were judged extraneous. Plans for satellite delivery of some course content were dropped and consequently no costs resulting from

charges by ACCESS were reported. Costs associated with the Alberta Correspondence School would be primarily development costs, and, as noted above, it was judged inappropriate to include these. (There were costs associated with the acquisition of Alberta Correspondence School materials by the schools, but these were treated as an operating expense of the schools.) Salary costs associated with the operation of the Project Office were not included in the Phase 1 analysis on the grounds that the personnel associated with the project were regular employees of Alberta Education. It was assumed that, had they not been working on the project, they would have been employed at other activities within Alberta Education. During Phase 2, one employee was added to the Project Office who would otherwise not have been employed in Alberta Education. A case could be made for including his salary and indirect costs in the cost model. However, in light of the fact that the Project Office has since become a branch of Alberta Education, and given that branch costs are not normally included in calculating the per pupil cost of education in schools in Alberta, it was decided to omit all Project Office costs from the model.

Finally, apart from costs associated with the tutor/markers, all district costs were directly associated with the delivery of distance education at the school level. Hence there appeared no need to separate district costs from those associated with the tutor/markers and the schools. The result of the foregoing, therefore, was to remove administration as a cost category, and remove ACCESS, Alberta Correspondence School, Project Office, and Districts as cost centres. The result was the much reduced cost model for Phase 2 which appears in Table 6.2

Table 6.2
Elements of the Phase 2 cost model.

Life Cycle Phases	Cost Centres	Cost Categories
Capitalization	Schools	Personnel
Operation	Tutor/Markers	Supplies/Services

The cost data that were either gathered or estimated will be presented in a sequence starting with the known costs reported by the Project Office. Then estimates of costs not reported by the project office will be presented in a series of stages. In each case the rationale for the approach taken to estimte costs will be presented. The reason for presenting the analysis in stages is because the inclusion of certain categories of cost information may be treated as debatable vis-a-vis their usefulness in forecasting actual costs for schools embarking on the project. For example, the Project Office made funds available to the 13 original schools to offset the coordinators' time. This financial support was not made available to the 15 schools which joined the project in Phase 2. One can calculate the amount which would have been paid to these schools had they been admitted under the same terms as the other 13 and argue that this represents the true cost of coordinating distance education, the only difference being that the dollar value was absorbed by the staff in the new schools by diverting them from other activities in the schools. Conversely one could argue that, since the 15 new schools could operate the program without additional funds for coordination, the amount expended on coordinators in the 13 other schools should not be treated as a "real" cost of distance education—it was "found" money, an incentive to participate. To this matter we will return.

Costs to the Project Office

The DLSS Project Office reports the following as its Vote 2 Grant Disbursement for the 1988/89 school year (Phase 2)[1].

Salaries (Coordinators, Tutor/Markers, Interns)	$ 616,855.00
Equipment rentals (FAX machines, teleconferencing bridge)	37,776.86
Telephone charges (including FAX)	82,682.00
Other (consumables, inservice, etc)	25,995.07
TOTAL	$ 763,308.93

This represents the total cost to the Project Office for the delivery of 7161 credits, or $106.59 per credit. Assuming 35 credits per FTE student, this translates into $3730.65 per FTE student.

It is the position of the Project Office that the cost of the 11 interns, funded at a cost to that office of $11,700 each, should be excluded from the calculations. If this is done, the per credit cost to the Project Office becomes $88.62 per credit, or $3,101.70 per FTE student. The evaluators do not concur with this position. The fact that most of the interns worked from half- to almost full-time with distance education warrants their being considered part of the operating costs of the project. In other cases their teaching load was such that other professional staff in the schools were freed of some other responsibilities to supervise distance education activities. Furthermore, many of the schools which joined the project in Phase 2 either hired interns themselves or hired teacher aides on a part- or full-time basis to perform many of the support functions which were the responsibility of the interns in schools having interns. One can make a case that many of the functions performed by the interns, and for that matter the coordinators, could be performed at less cost by employing aides.

Table 6.3
Direct costs included and excluded in Project Office calculations

Direct costs included:

- Coordinator costs original 13 schools
- All tutor/markers costs
- 2/3 cost of the interns in the original 13 schools (11)
- All tutor/marker telephone, FAX, & postage charges
- Project related telephone and FAX charges for original 13 schools
- FAX paper (or paper and toner) for original 13 schools
- All teleconferencing costs
- All travel for inservice

Direct costs <u>not</u> included:

- 1/3 cost of interns in the original 13 schools
- Cost of interns in new schools (2)
- Costs of teacher aides (7)
- Telephone & FAX charges for 15 new schools
- FAX paper for 15 new schools
- ASC materials for all schools

Direct Operating Costs of the Whole Project.

The costs to the Project Office, however, represent only part of the costs of delivering distance education courses during Phase 2 of the DLSS Project. Table 6.3 lists the costs included and excluded from the calculations. In order to accurately calculate the total cost of the DLSS Project in Phase 2, it would be necessary to have access to all of the data listed in Table 6.3 and not just the direct charges to the Project Office, or else be able to isolate the costs associated with a subset of the schools (the original 13). The latter cannot be done because tutor/marker costs represent a cost across all 28 schools, and also represent a major expense of the project. On the other hand, the evaluators did not have access to an accounting of all the expenditures of all the schools in the project. Consequently the best that one can do is to generate an estimated cost to deliver distance education across the project. Following is an account of the evaluators' effort to generate that estimate:

Cost of interns in original 13 schools. Only three-quarters of the cost of the interns salaries were paid by the Project Office. The remaining one-quarter was paid for by the districts. Given 11 interns, the remaining cost amounts to $ 42,900.

Cost of interns in new schools. Two schools had interns who were not subsidized by the project. The cost of these was $ 31,200.

Cost of teacher aides. Seven schools employed teacher aides on a part-time basis to assist with distance education. On average these worked three hours per day. Assuming 190 working days and a rate of $9/hour, the associated costs would be $ 5,130 per school for a total of $35,910.

Telephone & FAX long distance charges for the 15 new schools. In the absence of records, this is difficult to estimate. Since most of these costs involve the tutor/markers, and most are associated with the FAX machine rather than the telephone for direct conversations, it is possible to extrapolate roughly the total telephone/FAX charge. In other words, the total cost (TOTAL) will be the sum of the tutor/markerlong distance costs (T), the long distance costs from the original 13 schools (R), and the long distance costs from the new 15 new schools (N). The portion charged back to the Project Office (tutor/markers plus original schools) was reported as $82,682. In Phase 1, the long

distance costs associated with the tutor/markers were approximately half those associated with the schools. One possible assumption is that the same ratio applied in Phase 2.

A second approach would be that on average, for every piece of paper FAXed in one direction, there was a piece FAXed in the other direction. On this assumption, the costs of the tutor/markers' FAXing should equal the sum of the FAXing from the schools. This we know would result in a low estimate of the costs to the new schools. First, more materials were sent to the Tutor/Markers than were FAXed back, since many tutor/markers did not FAX back sheets which were correct. Second, the volume of retries at sending FAX transmissions was reported to be higher in the schools than at the tutor/marker locations. In all likelihood, the cost lay between these two calculations. Consequently the average of the two was used as an estimate of the FAX/telephone charges of the new schools.

Finally it was assumed that the amount of use was proportionate to the number of students registered for distance education courses, 372 students in the original 13 schools and 568 students in the 15 new schools. The result of all these assumptions was to generate the following equations:

TOTAL=T+R+N	
T=(R+N) *[1:1 ratio]*	T=(R+N)+2 *[1:2 ratio]*
N=568R+372	
T+R=$82,682	

Solving these equations produces the following results:

	1:1 Ratio	1:2 Ratio
Tutor/Marker Costs (T)	$ 59,238.63	$ 46,152.66
Original Schools (R)	23,443.37	36,529.34
New Schools (N)	*35,795.25*	*55,775.98*
TOTAL	$ 118,477.25	$ 138,457.98

ESTIMATED AVERAGE FOR NEW SCHOOLS $ 45,785.62

It remains to ask whether the number generated for the new schools is a reasonable estimate. Given 15 schools, $45,785.62 amounts to an average of $3,052.37 per school, or $381.55 per month, assuming 8 months in which FAXing took place on a routine basis. This number is judged to be reasonable given that the school in Consort which had 71 students registered (among the largest of the schools) reported monthly phone bills between $600 and $800.

Consumables for new schools excluding instruction booklets. Since the consumables reported by the project office are largely associated with the operation of the FAX machines, this cost was extrapolated in the same proportion as was used to calculate the telephone charges. This in turn amounts to $14,395 for the new schools.

Correspondence course materials. No correspondence course materials were charged back to the project. The cost of acquiring Alberta Correspondence School materials during Phase 2 was $10 per 3 credit course and $20 per 5 credit course. An examination of the student database maintained by the Project Office for Phase 2 indicates 633 registrations for 5-credit courses and 313 registrations for 3-credit courses. This in turn results in an estimated cost of ACS materials of $15,790.

Table 6.4
Summary of direct costs NOT charged back to the project.

1/4 cost of interns in 11 schools	$ 42,900
Full cost of interns in 2 schools	31,200
Teacher aides (7) *[estimated]*	35,910
Communication costs in 15 new schools *[estimated]*	45,785
Consumables for 15 new schools *[estimated]*	14,395
Correspondence school materials in all schools	15,790
TOTAL	$ 185,980

If these costs are added to the costs charged back to the Project Office ($763,308.93), the overall direct operating costs for Phase 2 of the DLSS Project can be estimated to have been $ 949,289, OR $133 per credit, OR $4640 per FTE student.

Indirect Operating Costs

In addition to the direct cost of salaries, employment of personnel entails a number of indirect costs associated with benefit packages, Canada Pension Plan payments, and the like. The rate for calculating such indirect costs varies from district to district, though through the negotiating process the rates appear to be coming closer together. The industry standard for calculating indirect costs is 20% of salaries. However, depending upon the negotiated agreement the division of payment of some benefits (e.g., life insurance and dental plans) varies from 75% by the employer to 100% by the employer. In an effort not to provide an inflated estimate of the indirect costs, therefore, a rate of 15% rather than the industry standard of 20% was used.

One must also consider the salary base upon which the indirect rate is calculated. Technically the cost for coordinating the program should be included in the base for calculating the indirect costs. However, since coordinators were all regular staff members of the their respective schools, the associated indirect costs would normally have been borne by the districts irrespective of whether or not the distance education project existed. Consequently, for purposes of this report, only the salaries of staff (interns and teacher aides) who were added to support distance education were considered in the base for calculating indirect costs.

Salaries of interns [actual]		$ 202,800
Salaries of aides [estimated]		35,910
TOTAL		$ 238,710
Indirect costs @ 15%	$ 35,807	

If one adds this estimate of indirect costs to the previously calculated total direct operating cost ($ 949,289) , one gets a combined operating cost of $985,096 OR $138 per credit, OR $4830 per FTE student.

Coordinator Costs Absorbed by the 15 New Schools

This section of the cost analysis is purely speculative. One of the curious features of trying to perform a cost analysis on Phase 2 of the DLSS Project is that the total number of credits offered across all 28 schools is used to calculate the per credit cost of the project, while there was not an even financial treatment of the schools involved. The fact that the new schools paid for a number of direct operating costs has already been noted. There remains, however, the fact that the original schools were reimbursed for coordinator costs while the 15 new schools were not. (This, incidentally, was part of the agreement under which the new schools entered the project.)

The evaluators were curious to know what the operating costs of the project would have been had ALL schools been reimbursed for coordinator costs at the same rate, $4000 for every five students up to a maximum of $20,000. Table 6.5 (following page) shows what these costs would have been had they actually been paid.

Had these 15 schools been reimbursed at the same rate as the original 13, it would have added another $252,000 to the operating costs of the project ($985,096). The total operating costs would then have been $1,237,096 OR $173 per credit, OR $6046 per FTE student. In other words, one arrives at a cost per FTE student which is very close to the $5,831 per FTE student which was calculated during the Phase 1 cost analysis.

Table 6.5
Hypothetical extension of coordinator costs to 15 new schools.

School	No of Students	Coordinator Allocation
Acme	49	$ 20,000
Bassano	27	20,000
Bow Island	18	12,000
Castor	64	20,000
Chamberlain	22	16,000
Coalhurst	33	20,000
Consort	71	20,000
Coronation	8	4,000
Duchess	48	20,000
Foremost	52	20,000
Irvine	16	12,000
Nobleford	33	20,000
Standard	49	20,000
Stirling	24	16,000
Warner	16	12,000
TOTAL		$ 252,000

Summary of Cost Calculations

Table 6.6 summarizes the cost totals calculated thus far. It begins with the direct costs to the Project Office (and notes the reduced cost if interns are excluded). To the total for the Project Office (interns included), the direct costs not reimbursed by the Project Office were added. Then to this combined cost, the estimate of indirect costs was added, and finally to that total the hypothetical cost for the coordinators in the 15 new schools was added.

Table 6.6
Summary of costs as additional factors are added to total.

	Total	Per Credit	Per FTE Student
Project Office	$ 763,309	$107	$ 3731
(If interns excluded)	*(634,609)*	*(89)*	*(3,101)*
Direct school costs added	949,289	133	4640
Indirect costs added	985,096	138	4830
Absorbed coordinator costs added	1,237,096	173	6046

For the remainder of this analysis, the total including the Project Office, additional direct costs to schools, and indirect costs will be used ($985,096), which in turn generated the rates of $138 per credit and $4830 per FTE student.

Comparative Analyses

There are two comparison questions which are of interest: (1) How does the cost of delivering the courses through the wide-area model of distance education compare to the costs of offering the courses which were already in place in the schools? (2) How does the cost compare with what it would cost to add these course offerings to the schools.

Comparison with costs of courses already in place. There is not at this point a single baseline figure against which the distance education course costs can be compared. The Project Office is using a 1986 figure of $3662. In the Phase 1 evaluation, a figure of $3224 was derived as an average for those school jurisdictions participating in Phase 1. A 1989 report by Nicols Applied Management[2] suggests a cost in senior high schools of $2894 per pupil with a standard deviation of $642. If one assumes that the cost in rural districts is at least one standard deviation above the mean, one arrives at an estimated minimum cost per FTE student of $3536.

No matter which of these figures one uses, one finds that the costs of delivering distance education as the wide-area model was employed in the DLSS Project (approximately $4935) is more expensive than the cost of offering courses already in place in the high schools (approximately $3600).

Comparison with costs of adding the courses in some conventional means. In the Phase 1 cost analysis two approaches were taken to estimate the costs of adding staff to teach the courses now offered through distance education. One approach shared staff among schools within reasonable geographic proximity. The other placed a "generalist" teacher in each school supported by a team of itinerant specialists. The less expensive of these two models was the additional shared staff. The per FTE student cost associated with that model was $7350.

Using this as an estimate of the cost of teaching the additional courses in a conventional manner, the wide-area model appears to be almost $2500 per FTE student less expensive, ($4935 compared to $7350).

Implementation on a Reduced Cost Basis

At the beginning of this chapter it was noted that two interpretations could be derived from the fact that 13 of the schools received additional funding for coordinators and interns, while the remaining 15 schools did not. There appears no question but that additional local support is required to make the program effective, and the quality of results appears directly related to the quality of the local supervision. Based on the experience of a number of the schools which joined the project during Phase 2, it seems reasonable to at least suggest exploring the possibility of providing a teacher aide to handle many of the functions which in Phase 2 were performed by the interns and coordinators, and to attempting to provide other professional support with existing professional staff.

To test the economic viability of this approach, all coordinator and intern costs together with the associated indirect costs were removed from the costs for Phase 2 and were replaced with a hypothetical cost for teacher aides. The assumptions applying to the calculation of the cost of teacher aides were a rate of $9.00/hour, an average of 4 hours/day across all schools, and a working year of 190 days.

Table 6.8
Hypothetical cost of substituting aides for interns/coordinators.

Phase 2 costs less all school-based personnel	$ 474,970
Half-time teacher aides (28 @ $9/hr)	191,520
Indirect costs (@ 15%)	28,728
TOTAL	$ 695,218

Had the costs of local personnel support been restricted across the project to an average of a half-time aide, the total cost for the project in Phase 2 would have been $ 695,218, OR $97 per credit, OR $3395 per FTE student. In other words, the cost would have fallen within the range of numbers which have been used to indicate the conventional cost of delivering instruction, and lower than the $3600 used above as the per FTE student cost of conventional instruction.

Reduced Cost Model Including Hypothetical Coordinator.

Since schools districts considering implementing distance education using a wide-area or consortium model may derive cost estimates from this report, the evaluators wish to add one further hypothetical cost factor—that of a consortium coordinator who would be responsible for many of the functions carried on in the Project Office during Phase 2. A suggested amount for such a cost for a consortium encompassing 28 schools (the number in Phase 2) is $90,000. This estimate is based on the fact that Project North with 26 schools has budgeted coordinator costs of $75,000 for 1989-90. It would appear that some of the overhead associated with operating that office may be borne by Fairview College. Consequently 20% has been added to account for potential overhead.

If one were to add this hypothetical coordinator cost to that of the reduced cost model ($695,218), one would arrive at a new total of $785,218 OR $109.65 per credit OR $3838 per FTE student. Given this additional administrative cost, one notes that the cost of distance education becomes slightly more than, but still close to, the cost of conventional instruction. Of course, one must also keep in mind that these rates are based on 28 schools and 7161 credits, the numbers for Phase 2 of the DLSS Project.

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1 Letter received from Dr. Tom Gee, dated November 20, 1989.

2 **Regional Price Differences of Selected Education Programs. Phase II: Analysis of Per Pupil Expenditures.** Prepared for Alberta Education Planning and Policy Secretariat by Nichols Applied Management. March, 1989.

APPENDIX A

INTERVIEW PROTOCOLS

DISTANCE LEARNING COORDINATOR INTERVIEW PROTOCOL

1. Expectations

1.1. Tell me generally what you do in your role as the Distance Learning Coordinator?

OR

How does your role as Distance Learning Coordinator this year compare with your role last year?

1.2. Now let's review the details of what you have actually been doing.

[ ] Tending fax
[ ] Record keeping
[ ] Tending phone
[ ] Tutoring/teaching DLSS subjects
[ ] Administration
[ ] Maintenance of hardware
[ ] EMail
[ ] Computer Conferencing
[ ] Computer Managed Learning
[ ] _____

1.3. Let me ask you to rank order these in terms of time you spend on each task.

[ ] Tending fax
[ ] Record keeping
[ ] Tending phone
[ ] Tutoring/Teaching DLSS subjects
[ ] Administration
[ ] Maintenance of hardware
[ ] EMail
[ ] Computer Conferencing
[ ] Computer Managed Learning
[ ] _____

1.4. *IF NEW*
Who decided the nature of your role (or how was it decided)?

1.5 *IF NEW*
Did what you originally expected to do differ from what you have actually done? [ ] Yes [ ] No

IF YES, in what ways?

1.6. IF COORDINATOR IS ALSO PRINCIPAL. . .
Have problems arisen in continuing the project that you didn't expect? If yes, specify.

OR IF NEW

Have problems arisen in implementing the project that you didn't expect? If yes, specify.

2. Time

2.1. How much time do you spend coordinating the Distance Learning project?

2.2. Is this amount of time adequate? [ ] Yes [ ] No
2.2.1. If not, why not?

3. Changes in Role

3.1. Have there been changes in your role as new technologies were introduced?

3.1.1. EMail	yes [ ]	no [ ]
3.1.2 Computer Conferencing	yes [ ]	no [ ]
3.1.3 ACCESS Broadcasts	yes [ ]	no [ ]
3.1.4 Computer Manage Learning	yes [ ]	no [ ]

3.2. If there have been changes, what is the nature of the change?

4. Colleagues

4.1. How functional has been the relationship between you and the **tutor/markers**?

4.1.1. Tell me about some of the things in your relationship with the tutor/markers that you were pleased with.

4.1.2. Tell me some of the things that you perceived as dysfunctional—didn't work well.

4.2. Does you school have an **intern**? [ ] *OR* **teacher aide**? [ ]
Let's turn to your relationship with that person in your school.

4.2.1. What has his/her role been vis-a-vis your role?

4.2.2. What responsibilities were given to him/her?

clerical	[ ]
tutoring	[ ]
advisement	[ ]
_____	[ ]

5. Tutoring

5.1. How much tutoring took place locally?

5.1.1. Who is doing the tutoring? [ ] coordinator [ ] intern [ ] aide [ ] other teachers [ ] other students?

5.1.2. IF BY OTHER TEACHERS, was it [ ] casual [ ] frequent?
5.1.3. IF BY OTHER TEACHERS, was it [ ] formal [ ] informal?
5.1.4. IF BY COORDINATOR...What per cent of the time? _____
5.1.5 IF BY OTHER STUDENTS, was it [ ] casual [ ] frequent?
5.1.6 IF BY OTHER STUDENTS, was it [ ] formal [ ] informal?

5.2. How frequently were the tutor/markers called upon for tutoring assistance?

6. ACS Materials

6.1. What do you see as the strengths of the ACS Materials?

6.1.1 Old ACS Materials
6.1.1.1 Please give examples

6.1.2 New ACS Materials
6.1.2.1 Please give examples

6.2. What do you see as the weakness of the ACS Materials?

6.2.1. Old ACS Materials
6.2.1.1 Please give examples

6.2.2 New ACS Materials
6.2.2.1 Please give examples

7. Supporting resources (Note courses referenced)

7.1. How have your physical facilities helped or hindered distance education?

7.2 Are there material resources which you found necessary but lacking?
7.2.1 IF YES, please give examples.

7.3 Did you use human resources other than those formally available through the program (e.g., persons in the community)?

7.4 Were there human resources for distance learning which you would have liked but which were unavailable to you?
7.4.1 IF YES, please give examples.

8. Suggestions

8.1. What resources do you feel need to be added to improve the program?
8.2. What suggestions would you have for improving the coordinator role?
8.3. What other changes would you suggest?

INTERN INTERVIEW PROTOCOL

Before we get down to the questions that I want to ask you, I want to make sure you understand why I'm here and why we're having this interview. Alberta Education is in the first year of a three year pilot project to test the feasibility of using distance learning techniques to provide additional course offerings in small schools such as this one. You learned something about evaluation in your academic program—now you are in the middle of the real thing. I'm one of a team of two evaluators whose job it is to take an impartial look at the project and find how how it's going, what's working well, what may needed to be changed to make it work better. At least part of your role in this school has been to assist with the distance learning project. Consequently I need to know the types of things you have been doing, how your role has related to other personnel on the project, and a bit about your perceptions of how things have been going. Are you comfortable with all that?

1. Background

1.1. Tell me a bit about yourself—what you specialized in college, what your ambitions are for your teaching career, how you came to be in this school involved in this project...

1.2. I'm curious—did you come across distance learning at all in your academic program?

1.3 Have you ever take [ ] a correspondence course? [ ] a distance education course

2. Role

2.1. Have you been doing things in the school other than the Distance Learning Project?

2.1.1. IF OTHER THINGS...what sorts of other things have your been doing?

2.1.2. IF OTHER THINGS...what portion of your time have you spent on them?

2.2. Now, tell me about the things you've had to do on the distance learning project.

[ ] Tutoring
[ ] Teaching small groups
[ ] Teaching whole class
[ ] Marking
[ ] Record Keeping
[ ] Tending Fax
[ ] EMail
[ ] Computer Conferencing
[ ] Computer Managed Learning
[ ] Setting up equipment
[ ] Advisement
[ ] Motivating students
[ ] Other _____

2.3. Let's go back over the list of things you've done and consider the time demands. I'd like you to try to rank order the list—what you spent the most time doing, the next most, and so on.

[ ] Tutoring
[ ] Teaching small groups
[ ] Teaching whole class
[ ] Marking
[ ] Record Keeping
[ ] Tending Fax
[ ] EMail
[ ] Computer Conferencing
[ ] Computer Managed Learning
[ ] Setting up equipment
[ ] Advisement
[ ] Motivating students
[ ] _____

2.4. How much tutoring took place locally as opposed to being done by the tutor/markers?
2.4.1. What % of your time would you say you spent tutoring?

2.5. What has been the role of the Distance Learning Coordinator in your school?

2.6. Next question: Tell me what help or training—if any—you received in order to perform your responsibilities and from whom you received it.

3. Technologies

3.1. You've obviously been very close to the day to day workings of the project. For a "typical" student—tell me about when they study for the distance learning courses, where they study, how they get assignments, how they take tests, what sorts of comments they make to you about the courses. . .

3.2. Have you had much to do with the FAX transmissions?
3.2.1. IF YES, how well is the system working?
3.2.2. Do you have suggestions for changes?

3.3. Have you had much to do with EMail & Computer Conferencing?
3.3.1. IF YES, how well did it work?
3.3.2. Do you have suggestions for changes?

3.4. Have you had much to do with Computer Managed Learning?
3.4.1. IF YES, how well did it work?
3.4.2. Do you have suggestions for changes?

3.5. Have you been directly involved with any teleconferencing?
3.5.1. IF YES. . .
3.5.1.1. What role did you play?
3.5.1.2. What subject(s) were involved?
3.5.1.3. Tell me how well it worked from your point of view
3.5.1.4. Do you have suggestions for changes?

3.6. If I asked you to rank-order the correspondence school materials, teleconferencing, (the CML system,) comments from tutor/markers, your own activities, those of other teachers, and those of the program coordinator in terms of their impact on student learning, what order would you put them in?
3.6.1. Why?

4. Relationships

4.1. Tell me about the relationship between you and the Tutor/Markers.
4.1.1. What sorts of things did the T/Ms expect you to do?
4.1.2. How much did you communicate with them?
4.1.3. What sorts of things did you discuss?

5. Advice

5.1. Let's suppose that it's your job to create the next version of the Distance Learning project.

5.1.1. What would you leave the same?

5.1.2. What changes would you make, and why?

5.1.3. What would be the role of the intern in your scheme of things?

PRINCIPAL INTERVIEW PROTOCOL

1. From the school's perspective what, if any, has been the impact on . . .

   1.1. . . . student program
   1.2. . . . staff
   1.3. . . . facilities
   1.4. . . . time-tabling
   1.5. . . . resources not funded by Alberta Education (e.g., libraries)
   1.6. . . . relationships to other schools and districts
   1.7. . . . school finances
   1.8. . . . other?

2. IF NEW SCHOOL, what assistance from the District did you receive in implementing the program?

3. IF NEW SCHOOL, what additional assistance do you think you ought to have received?

4. Satisfaction:
   4.1. What level of satisfaction do you perceive your staff to have with the Distance Learning project?
      4.1.1. What about those not participating directly?

   4.2. How have the parents of your students reacted to the project?
      4.2.1 How have parents been informed about the project?

   4.3. What community reaction has there been apart from parents of the students involved?
      4.3.1. What indicators have you had?

   4.4. About yourself, how satisfied have you been with the project to date?
      4.4.1. Has the staffing within your school worked the way you hoped it would?
      4.4.2. Can you comment on the relationship between your school and the Tutor/Markers?
      4.4.3. Tell me about the role of the Distance Learning Coordinator in your school.
      4.4.4. Tell me about the role of the Intern [ ] OR Teacher Aide [ ].
         4.4.4.1. How would you have staffed the project if this person had not been available?

5. *IF NEW SCHOOL...***Expectations:**

   5.1. What benefits did your school expect from participating in the Distance Learning project?

   5.2. What benefits do you feel your school obtained?

   5.3. What was expected of your school to participate in the program?
   5.3.1. Was your school able to meet those expectations?

   5.4. What was expected of you personally?
   5.4.1. Were you able to meet those expectations?

6. Tell me how you went about **allocating resources** (e.g., staff) to the Distance Learning project and why.

7. Let's talk about scheduling for teleconferencing or live ACCESS broadcasts...

8. Has **communication with the project leadership** been adequate for you to operate the program satisfactorily?
   8.1. Do you have suggestions for changing the nature of communication?

9. **Strengths & Weaknesses:**
   9.1. What would you identify to be the strengths of the project in its present form?
   9.2. What would you identify to be the weaknesses?

10. What would you suggest as the best way to organize and manage the distance learning project across the participating schools?

11. Generally, do you have **suggestions** for changes you would like to see in the program?

STUDENT INTERVIEW PROTOCOL

Hi, _____. I'm _____. Thank you for meeting with me. As you know, Alberta Education is trying some new methods for offering courses in small high schools like yours using things like correspondence courses, fax machines, and the like. When you start a new program, you have to find out what is working and what needs to be improved. One of the ways you find that out is by asking the people who are most closely involved. In this case that means talking to students like yourself who are taking courses through the Distance Learning project.

WERE YOU INTERVIEWED LAST YEAR? [ ] YES [ ] NO

IF YES... I guess you know how we do this, then. Would you like me to review the process, or shall we get started?

IF NO...

OK. Let me point out a couple of things about what we are going to do. First, I expect this is going to take about 15 minutes. I have some questions that I would like to ask you, not about what you've learned or what other people think you should have learned, but about HOW the program has worked for you. I'm going to be making notes as we talk, because I need to remember what you tell me. When all the interviews are finished, we will take everything that everyone has told us and put it all together. I want you to understand that once you have finished talking to me, your name is going to disappear, so that no one will ever be able to trace anything you say to me back to you. Are you comfortable with that?

Then, let's get started.

1. First, tell me which courses you have been taking through the Distance Learning Project this year.

2. Did you take any DLP courses last year? [ ] Yes [ ] No
   2.1 IF YES, what differences, if any, did you find between this year and last?

3. *IF NEW TO DLP*
   Have you ever taken correspondence school courses before? [ ] Yes [ ] No

   3.1. IF YES...
   - 3.1.1. When?
   - 3.1.2. What courses?
   - 3.1.3. What did you find different between those courses and the ones you are taking through the Distance Learning project?

4. **When did you do most of your work** for your DL courses?
   [ ] Regularly scheduled periods [ ] Spares [ ] Outside school hours

5. **Where did you do most of your work** for your DL courses?
   [ ] At Home [ ] DL Room [ ] Library [ ] Regular classroom

6. Is where you study and when you study for the DL courses the same pattern as for your "regular" courses?
   [ ] Yes [ ] No

7. How do your **grades** compare between DL Courses and courses locally available in your school?
   [ ] DL better [ ] DL the same [ ] DL poorer

8. When you were studying and needed **help**. . .how did you get it?
   [ ] Didn't get help [ ] Intern [ ] Aide [ ] Coordinator [ ] T/M
   [ ] Other Teachers [ ] Other Students [ ] Parents [ ] Other

9. Which of the following **resources** did you use, if any?

		Perceived Usefulness		
		Very	Somewhat	Not
[ ]	library books	[ ]	[ ]	[ ]
[ ]	films	[ ]	[ ]	[ ]
[ ]	videotapes/cassettes	[ ]	[ ]	[ ]
[ ]	filmstrips	[ ]	[ ]	[ ]
[ ]	audiotapes/cassettes	[ ]	[ ]	[ ]
[ ]	kits	[ ]	[ ]	[ ]
[ ]	other teachers in your school	[ ]	[ ]	[ ]
[ ]	Tutor/Markers	[ ]	[ ]	[ ]

10. Let's talk about the different **components** of the Distance Learning Project?

10.1. OLD Correspondence Course Materials

10.1.1. Was the reading level [ ] too easy, [ ] about right, [ ] too difficult?

10.1.2. Was the way the material was organized [ ] easy to use or [ ] difficult to use?

10.1.2.1. Why?

10.2. NEW Correspondence Course Materials

10.2.1. Was the reading level [ ] too easy, [ ] about right, [ ] too difficult?

10.2.2. Was the way the material was organized [ ] easy to use or [ ] difficult to use?

10.1.2.1. Why?

10.3. FAX

10.3.1. Was the turnaround time getting feedback to you fast enough?

10.3.2. Was the feedback you received useful to you?

10.3.2.1. Did you normally read the feedback you received?

10.3.3. How was the quality of print on the faxed materials?

10.4 Computer

10.4.1 Did you send/received messages from the Tutor/Marker using **electronic mail?**

10.4.1.1 How useful did you find electronic mail?

10.4.2 Did you use the **electronic bulletin board?**

10.4.2.1 How useful did you find the electronic bulletin board?

10.5. Teleconferencing

10.5.1. Did you participate in teleconferencing sessions with any of the tutor/markers?

10.5.1.1. IF YES. . .

10.5.1.1.1. Which courses?

10.5.1.1.2. Describe how teleconferencing was set up in your school.

10.5.1.1.3. Did you feel comfortable talking?
IF NOT, why not?

10.5.1.1.4. Could you easily understand what was being said?

10.6. Computer Managed Learning

10.6.1. Did you use a computer managed learning system?
[ ] Yes [ ] No

IF YES...

10.6.2. Which course(s) did you use it in?

10.6.3. Tell me what, if anything, you liked about it.

10.6.4. Tell me what, if anything, you disliked about it.

10.7. Tutor/Markers

10.7.1. Did you get useful feedback from the tutor/markers on your assignments?

10.7.1.1. Give me some examples that you can think of.

10.7.2. Did you ever contact the Tutor/Marker directly looking for assistance?

10.7.2.1. IF YES...which of the following did you use?
[ ] phone
[ ] FAX
[ ] electronic mail
[ ] electronic bulletin board

10.7.2.2. IF YES...did you get the help you needed?

10.7.2.3. IF YES...were you looking for help with course material or for advice on other matters, for example, what course to take next?

11. What would you be doing with your time if these courses weren't available?

12. Did you find it difficult to get assignments done on time?
    12.1. IF YES...why?

13. Does it matter to you that there wasn't a local teacher for the DL courses you took?

14. Did you find that you needed materials that weren't available locally?
    14.1. IF YES...what kinds of material?
    14.2. Were you able to get them?
        14.2.1. IF YES...how and with whose help?

15. What did your school do to prepare you to take courses through Distance Learning?

16. If you could make changes in the program, what changes would you like to see?

17. Given your experience thus far, would you continue to take courses this way?

18. Would you recommend to other students that they take courses this way?

That's the end of my list. Have you got any questions for me?

Thanks very much for helping. Good luck.

SUPERINTENDENT INTERVIEW PROTOCOL

1. **Satisfaction:**

   1.1. Do you have any indication(s) how the public in your district perceive this project?

   1.2. What has been done to inform people about the project?

   1.3. How has your school board reacted to the Distance Learning project?

   1.4. Personally, are you satisfied with how it has been going?

2. **Expectations:**

   2.1. What does your district expect to get out of the Distance Learning project?

   2.2. Is the project meeting the District's expectations?

3. What has been done at District Level to support the school(s) in the Distance Learning Project?

4. **Strengths & Weaknesses:**

   4.1. In your opinion what have been the strengths of the program?
   4.2. In your opinion, what have been the weaknesses of the program?

5. **Staffing:**

   5.1. What are your expectations for the role of the Tutor/Markers?

6. **Real-time Delivery**

   6.1 Some components of distance education, such as teleconferencing, can conflict with the traditional time-tabling patterns of a school. What is your position on adjusting time-tables to accommodate these components?

   6.2 Do you have any suggestions for how what seems to be a timetabling impasse can be solved on a district and inter-district basis?

7. **Tutor/Markers**

7.1 Should tutor/markers [ ] continue to be able to work outside school or district facilities or [ ] should they be school or district based?

7.2 Why?

8. **$$$**

8.1 When the DLSS Project has finished, what is the probability that your district will carry on distance education in some form?

8.2 At this point what form do you see it taking?
[ ] district [ ] consortium [ ] other

8.3 IF OTHER, please describe how it might be organized and managed.

9. Are there **changes** which you would recommend in the implementation of the program?

9.1. If yes, what would you suggest?

TUTOR/MARKER INTERVIEW PROTOCOL

NAME: _____
SUBJECT AREA: _____
COURSES: _____
NUMBER OF STUDENTS: _____

1. **Various technologies** are being used in the Distance Learning project. Let's talk about your experience with each of them in turn.

1.1. Telephone
- 1.1.1. Are students phoning for assistance?
  - 1.1.1.1. [ ] More or [ ] less than last year?
- 1.1.2. Were there problems?
  - 1.1.2.1. IF YES, what were the most significant problems?

1.2. Electronic Mail ... USED? [ ] Yes [ ] No

IF USED
- 1.2.1. Who used it?
- 1.2.2. For what purposes was it used?
- 1.2.3. What worked well and why?
- 1.2.4. Were there problems?
  - 1.2.4.1. If yes, what were the three most significant problems?
  - 1.2.4.2. Were they resolved?

1.3. Electronic Bulletin Board ... USED?. [ ] Yes [ ] No

IF USED
- 1.3.1. Who used it?
- 1.3.2. For what purposes was it used?
- 1.3.3. What worked well and why?
- 1.3.4. Were there problems?
  - 1.3.4.1. If yes, what were the most significant problems?
  - 1.3.4.2. Were they resolved?

1.4. Facsimile Machines:
- 1.4.1. Were there problems?
  - 1.4.1.1. If yes, what were the most significant problems?
  - 1.4.1.2. Were they resolved?

1.5. Teleconferencing:
- 1.5.1. Did you use it?
- 1.5.2. If yes, for what purposes?
  - [ ] teach new material [ ] review [ ] remedial
  - [ ] assessment [ ] oral component of language
- 1.5.3. If yes, what worked well and why?
- 1.5.4. If yes, what problems were there and why?

1.6. OLD ACS Materials:
- 1.6.1. Comment on strengths and weaknesses of the ACS materials.
- 1.6.2. What constructive suggestions have you for improvement of ACS materials?
- 1.6.3. Did you modify/augment ACS materials?
  - 1.6.3.1. If yes, what changes did you make?

1.7. OLD ACS Materials:

1.7.1. Comment on strengths and weaknesses of the ACS materials.
1.7.2. What constructive suggestions have you for improvement of ACS materials?
1.7.3. Did you modify/augment ACS materials?
1.7.3.1. If yes, what changes did you make?

1.8. Other Materials

1.8.1 What **other materials/technologies** were used to teach your subjects?
1.8.2.1 How effective were they?
1.8.2.2 Did schools know of their existence?
1.8.2 What **other materials/technologies** (if any) do you think should be incorporated in the program to teach your subjects?

2. Now let's talk abut **testing.**
2.1. Describe the methods you used to test students.
2.2 Were you using tests developed last year?
2.3. Did you develop your own tests?
2.3.1. IF YES, for what courses?
2.4. How much time did you spend generating new tests?
2.5. Can they be re-used?
2.6. Is there sufficient security for tests?
2.6.1 IF NOT, what should be done about it?

3. Some tutor-markers found it necessary to develop **other materials.**
3.1. Did you develop materials other than tests?
3.1.1. If yes,
3.1.1.1. what materials did you develop?
3.1.1.2. why did you design these materials?
3.1.1.3. how did you go about designing them?
3.1.1.4. Did you find any differences in preparing new materials for this project from the way you were used to?

4. Let's turn to **student motivation.**
4.1. Were there incentives for students to turn in assignments on time?
4.1.1. If yes, what were they?
4.1.2. What was the nature of your contact with the students, if any?
4.1.3. Do you have any general observations on motivation you would like to share?
4.2. What suggestions would you make for dealing with motivation for project students in the future?

5. Moving on to **your relationship with other participants in the project:**

5.1. Principals

5.1.1. What did you expect?
5.1.2. What did you actually find?
5.1.3. What did they do to make life easier for you?
5.1.4. What did they do to make life harder for you?
5.1.5. What could they do differently to benefit the project?

5.2. Coordinators

5.2.1. What did you expect?
5.2.2. What did you actually find?
5.2.3. What did they do to make life easier for you?
5.2.4. What did they do to make life harder for you?
5.2.5. What could they do differently to benefit the project?

5.3. Interns

5.3.1. What did you expect?
5.3.2. What did you actually find?
5.3.3. What did they do to make life easier for you?
5.3.4. What did they do to make life harder for you?
5.3.5. What could they do differently to benefit the project?

5.4. Teachers

5.4.1. What did you expect?
5.4.2. What did you actually find?
5.4.3. What did they do to make life easier for you?
5.4.4. What did they do to make life harder for you?
5.4.5. What could they do differently to benefit the project?

5.5. Aides

5.5.1. What did you expect?
5.5.2. What did you actually find?
5.5.3. What did they do to make life easier for you?
5.5.4. What did they do to make life harder for you?
5.5.5. What could they do differently to benefit the project?

5.6. Parents

5.6.1. What did you expect?
5.6.2. What did you actually find?
5.6.3. Did parents contact you directly?
5.6.4. Did you contact parents directly?
5.6.5. What suggestions would you make for dealing with parents?

6. Apart from school personnel, let's talk about **other help you may have received.**
   6.1. From whom did you receive help?
   6.2. What type of assistance did you receive?
   6.3. How satisfactory was that assistance? (Give examples.)
   6.4. What additional assistance would you have liked? (Give examples.)

7. Let's talk now about your workload.
   7.1. What were your expectations at the beginning of the year regarding tasks and time?
   7.2. What is the average amount of time you spent per day on the project?
   7.3. What proportion of your work time is spent . . .
      7.3.1. tutoring ____%
      7.3.2. marking ____%
      7.3.3. clerical ____%
      7.3.4. developing materials ____%
   7.4. Did you receive extra help from a spouse/friend?
      7.4.1. If yes, how much? _____

7.5. Has your workload pattern changed over the year?
7.5.1 If yes, please give examples?
7.6. If you developed materials for this year, can you re-use. . .
7.6.1. instructional materials [ ] yes [ ] no
7.6.2. record keeping system [ ] yes [ ] no
7.7. If material can be re-used, at what saving in time? _____
7.8. If material cannot be re-used, why not?
7.9. Were you to do this again next year, what new materials would you want to develop?

8. How do you feel about the matter of tutor/markers being housed in either schools or district offices as opposed to being able to work from their homes?

9. Now that we are near the end of the second year of the project, what do you think has been accomplished?

10. What would you suggest be done to improve the project?

11. Are there things we should talk about that we haven't discussed yet?

TEACHER AIDE INTERVIEW PROTOCOL

1. Role

1.1. Have you been doing things in the school other than the Distance Learning Project?

1.1.1. IF OTHER THINGS...what sorts of other things have your been doing?

1.1.2. IF OTHER THINGS...what portion of your time have you spent on them?

1.2. Now, tell me about the things you've had to do on the distance learning project.

[ ] Tutoring
[ ] Teaching small groups
[ ] Marking
[ ] Record Keeping
[ ] Tending Fax
[ ] EMail
[ ] Computer Conferencing
[ ] CML System
[ ] Setting up equipment
[ ] Advisement
[ ] Motivating students
[ ] Other _____
_____
_____

1.3. Let's go back over the list of things you've done and consider the time demands. I'd like you to try to rank order the list—what you spent the most time doing, the next most, and so on.

[ ] Tutoring
[ ] Teaching small groups
[ ] Marking
[ ] Record Keeping
[ ] Tending Fax
[ ] EMail
[ ] Computer Conferencing
[ ] CML System
[ ] Setting up equipment
[ ] Advisement
[ ] Motivating students
[ ] _____
[ ] _____
[ ] _____

1.4. How much tutoring took place locally as opposed to being done by the tutor/markers?
1.4.1. What % of your time would you say you spent tutoring?

1.5. What has been the role of the Distance Learning Coordinator in your school?

1.6. Next question: Tell me what help or training—if any—you received in order to perform your responsibilities and from whom you received it.

2. Technologies

2.1. You've obviously been very close to the day to day workings of the project. For a "typical" student—tell me about when they study for the distance learning courses, where they study, how they get assignments, how they take tests, what sorts of comments they make to you about the courses. . .

2.2. Have you had much to do with the FAX transmissions?
2.2.1. IF YES, how well is the system working?
2.2.2. Do you have suggestions for changes?

2.2. Have you had much to do with EMail & Computer Conferencing?
2.2.1. IF YES, how well did it work?
2.2.2. Do you have suggestions for changes?

2.3. Have you been directly involved with any teleconferencing?
2.3.1. IF YES. . .
- 2.3.1.1. What role did you play?
- 2.3.1.2. What subject(s) were involved?
- 2.3.1.3. Tell me how well it worked from your point of view
- 2.3.1.4. Do you have suggestions for changes?

2.4. If I asked you to rank-order the correspondence school materials, teleconferencing, comments from tutor/markers, your own activities, those of other teachers, and those of the program coordinator in terms of their impact on student learning, what order would you put them in?
2.5.1. Why?

3. Relationships

3.1. Tell me about the relationship between you and the Tutor/Markers.
3.1.1. What sorts of things did the T/Ms expect you to do?
3.1.2. How much did you communicate with them?
3.1.3. What sorts of things did you discuss?

4. Advice

4.1. Let's talk about the future of the Distance Learning Project.
4.1.1. What would you leave the same?
4.1.2. What changes would you make, and why?

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APPENDIX B

LOG FORMATS FOR TUTOR/MARKERS AND COORDINATORS

DIRECTIONS FOR USING TUTOR/MARKERS LOG

The log forms are designed to record three types of information: (1) a summary of time spent on DLSS Project activities, (2) a summary of the use of communications media, and (3) any comments about the activities of the days which you feel would be useful for the evaluators to know. Each sheet in the log book is already dated. Please fill in the log each day, using the page for that day. For days in which you engage in no DLSS Project-related activities, leave the page blank.

TIME LOG

The Time Log requires that you fill in the total time spent on each activity in that day in hours and minutes. A column marked "Scratch" is available if you wish to use it to keep track of time spent at different intervals in the day. These are then summed and entered in the hr/min columns at the end of the day. (Preferably the total time logged in any one day will not exceed 24 hours.) Following is a sample entry:

Activity	Scratch	hr	min
Marking	*1h 1h10 m 1h*	*3*	*10*
Tutoring			*15*
Advisement			
Record Keeping			*20*
Teleconferencing			
FAX Transmission			*30*
FAX Re-transmission			*12*
Consultation w. Schools			*5*
Preparation: Student materials		*1*	
Preparation: Teleconferencing		*1*	*40*
Preparation: Test construction			
Other			

This log entry indicates that the tutor/marker marked at three different times during the day and noted the times 1 hour, 1 hour 10 minutes, and 1 hour in the scratch space, for a total of 3 hours and 10 minutes that day. S/he also spent 20 minutes in record-keeping, 30 minutes in FAX transmission, another 12 minutes because the first transmission wasn't received in three schools, and 5 minutes consulting with schools (phoned one school to find out why a student hadn't sent in an assignment). The rest of the day was spent preparing student materials (s/he pre-viewed a videotape and developed an alternate explanation to one given in the text), and finally spent time preparing for an up-coming teleconferencing session.

Some guidelines as to definitions:

Marking	This involved grading assignments, quizzes, and examinations. If marking also includes writing notes to students to help them understand errors or otherwise gain a better understanding of the material, then an estimate of the portion of the time spent in this activity should be logged as "Tutoring" rather than as "Marking".
Tutoring	Time spent communicating with students and intended to help them understand course content.
Advisement	Communicating directly with students about courses which they should take or drop, career paths, etc.
Record Keeping	Recording grades, and other clerical activities.
Teleconferencing	Record time actually spent establishing contact with the bridge and conducting the teleconferencing session(s). Time spent preparing for a teleconferencing session should be entered below under "Preparation: Teleconferencing".
FAX	Two rows are available—one for FAX Transmission and the other for FAX Re-transmission. Use FAX Re-transmission for time spent re-sending material that was not received because of technical problems of one sort or another. Even if you have some one else tending the FAX for you, still record the time as if you did it yourself.
Consultation	Time spent communicating with school personnel (including principals, co-ordinators, interns, and secretaries. The content of the conversations does not matter.
Preparation	There are three categories: student materials, teleconferencing, and test construction. "Preparation: Student Materials" includes time spent either developing worksheets and the like, OR familiarizing yourself with teaching materials such as the ACS material or ACCESS videotapes. "Preparation: Teleconferencing" is for time spent preparing for a teleconferencing session—including the development of any materials specifically for use in a teleconferencing session. "Preparation: Test Construction" is for time spent developing quizzes, tests, and examinations.
Other	A category available for whatever doesn't fit into the above categories, such as figuring out the instructions for using this logbook, attending DLSS Project meetings, etc. It would be helpful if you included a note in the comments section explaining entries under "Other".

COMMUNICATIONS LOG

The communications log is divided into two sections, the first dealing with FAX and mail or courier services, and the second dealing with telephone and the computer network. In the case of FAX and mail/courier, we are interested only in total numbers sent and received each day.

COMMUNICATIONS LOG:

	# Transmissions	# Items	# Administration
FAX (Incoming)	*15*	*52*	*0*
FAX (Outgoing)	*21*	*76*	*4*
MAIL /COURIER (Incoming)	*2*	*3*	*0*
MAIL /COURIER (Outgoing)	*0*	*0*	*0*

For each row, enter the total number of transmissions (or packets of mail) received that day, the total number of items (student assignments, tests, queries from co-ordinators, etc) that were received or sent, and finally how many of the items were administrative in nature. Treat anything that is <u>not</u> a student assignment, quiz, test, or exam as administrative.

In the above example, the tutor/marker received 15 FAX transmissions. Within the 15 transmissions there were 52 student assignments—no other type of material was received. In the same day the tutor/marker sent 21 FAX transmissions containing a total of 76 items. Of the 76, four were administrative in nature. The tutor/marker also received two packages via mail or courier, and these contained three student assignments—hence "3" was entered under # of Items and "0" was entered under administrative. The tutor/marker sent nothing via mail or courier on this day.

Phone/Computer Network

In the case of the telephone and computer network, we are interested in additional information which can be captured in the checklist. For each telephone call and electronic mail (EMail) message, we are interested in knowing whether it was by phone or electronic mail, whether it was originated by someone else or by you (incoming or outgoing), whether the person you were communicating with at the other end was school personnel, a student, another tutor/marker, or someone else. Finally we would like to know what school or office was involved (if any). Codes for Project Office, District Offices, and participating schools are printed on the back of each log sheet.

There is room for only 16 entries on each daily page. **Additional record grids are included at the back of the log book.** If you need additional space to record phone and electronic mail activity for a day, enter the date above one of the space grids and continue.

Here is a sample of a log entry.

PHONE/COMPUTER NETWORK

	Phone	EMail		Incoming	Outgoing		Sch. Personnel	Student	Tutor/Marker	Other		Location
1	√			√						√		00
2		√		√			√					18
3	√			√						√		
4	√				√		√	√				35
5		√			√		√					*All*

The first entry was an incoming telephone call from someone in the DLSS Project office in Edmonton. Hence "Other is checked" and the location code is 00.

Line 2 records an electronic mail message, also incoming, but from the co-ordinator (Sch. Personnel) in Consort (code 18).

Line 3 is another incoming phone call, but from someone other than school personnel, students, or another tutor/marker. Since this person was not located at a project site, the location code is left blank.

Line 4 records a telephone call that the tutor/marker made (outgoing) to Stirling (code 35). The tutor/marker talked to both school personnel and a student during the call.

Line 5 was an electronic mail message, perhaps a copy of a test, which the tutor/marker sent to all schools with students taking a particular course. Hence "All" is entered under Location.

DATE: _____

TIME LOG:

Activity	Scratch	hr	min
Marking			
Tutoring			
Advisement			
Record Keeping			
Teleconferencing			
FAX Transmission			
FAX Re-transmission			
Consultation w. Schools			
Preparation: Student materials			
Preparation: Teleconferencing			
Preparation: Test construction			
Other			

COMMENTS:

_____

_____

_____

_____

_____

_____

_____

_____

_____

COMMUNICATIONS LOG:

	# Transmissions	# Items	# Administration
FAX (Incoming)			
FAX (Outgoing)			
MAIL /COURIER (Incoming)			
MAIL /COURIER (Outgoing)			

PHONE/COMPUTER NETWORK

	Phone	EMail		Incoming	Outgoing		Sch. Personnel	Student	Tutor/Marker	Other		Location
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												

THE COORDINATOR LOG

The evaluators of the DLSS project require information on the duties performed by school coordinators. This log is the of three time samples. This time sample will cover two weeks and will start on MAY 23 and run to JUNE 2. Please use this log to record your daily DLSS activities for the indicated period. The address to which it is to be returned is:

Dr. Bruce Clark
738 Education Tower
The University of Calgary
2500 University Drive N.W.
Calgary, AB. T2N 1N4

If you have any questions or problems related to the log, feel free to call either Bruce Clark at 220-7363 or Erv Schieman at 220-4025 or fax a message to either evaluator at 282-8479.

USING THE LOG

A separate entry should be made for each DLSS related activity for each day of the time sample. Identify the task (e.g. registered a student) and state the approximate time of the day the task was performed (e.g. before school) and the approximate amount of time used (e.g. 3/4 hour) to complete the activity. Please register the time to the nearest hour. Feel free to make comments regarding the success, of lack of successful, the difficulties in organizing or administrating, or any other aspect which could be used by the evaluators to ultimately improve the operation of the DLSS project. Categories of tasks which may apply in your situation are included, but are not restricted to:

advisement (student)
consultation (with other schools)
consultation (with tutor/markers)
tutoring
teleconference preparation
fax transmission
record keeping

As a reminder, for each task:

1. fill in description of task
2. fill in time needed
3. check time of day

Thank you in advance for your assistance in the evaluation of the project.

Bruce Clark
Erv Schieman

DLSS COORDINATOR LOGSHEET

DATE:_____

BEFORE SCHOOL	NOON	DURING SCHOOL	AFTER SCHOOL	AFTER SUPPER	TASK	TIME ON TASK HOURS/MIN.

COMMENTS:

APPENDIX C

SUMMARY OF TUTOR/MARKER LOGS

Summary of Time and Transmission Logs from Tutor/Markers

	Bus Ed (2)	Eng/Fr	Fine Arts	German	Home Ec	Ind Arts	Math (10)	Science*	Soc St (2)	TOTAL
TIME LOG:	**AVERAGE TIME PER WEEK**									
Marking	27.15	31.00	5.35	2.65	9.58	31.65	52.13	22.50	33.25	242.42
Tutoring	3.92	1.83	0.75	0.38	0.45	3.90	10.98	2.25	4.90	33.28
Advisement	1.58	0.60	0.20	0.00	0.63	0.00	1.05	0.00	0.55	6.184
Record Keeping	5.38	0.10	1.30	0.75	1.20	8.90	11.03	3.17	3.82	41.02
Teleconferencing	0.00	1.65	0.10	0.00	0.00	0.10	0.00	0.00	0.10	1.95
FAX Transmission	8.45	0.23	0.80	0.80	2.05	8.25	11.77	5.50	4.28	50.584
FAX re-transmission	0.54	0.05	0.15	0.02	1.05	0.10	2.52	0.75	0.53	6.25
Consultation	1.08	0.28	0.25	0.05	0.65	0.00	0.97	1.00	0.60	5.95
Prep: Student Materials	8.88	0.00	1.90	0.40	1.30	0.00	2.58	0.75	1.40	26.084
Prep: Teleconferencing	0.00	0.88	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.984
Prep: Test Construction	1.07	0.27	1.00	0.10	0.30	0.00	0.85	3.50	1.45	9.598
Other	4.39	2.45	1.10	1.35	1.35	2.10	11.32	0.00	4.38	32.829
TOTAL	*62.41*	*39.35*	*13.00*	*6.50*	*18.57*	*55.00*	*105.21*	*39.42*	*55.27*	
Average hrs/day	*12.48*	*7.87*	*2.60*	*1.30*	*3.71*	*11.00*	*21.04*	*7.88*	*11.05*	
	AVERAGE ITEMS PER WEEK									
COMMUNICATIONS LOG:										
FAX: Incoming (Transmissions)	86.15	79.40	7.60	10.00	45.00	80.80	105.60	41.00	88.00	629.7
FAX: Incoming (Items)	144.10	136.60	8.60	11.60	72.80	230.00	153.80		106.20	1007.8
FAX: Incoming (Admin)	11.60	14.00	2.20	4.40	9.40	0.40	12.00		7.60	73.2
FAX: Outgoing (Transmissions)	80.00	79.80	13.20	14.00	42.40	86.20	110.00	62.00	110.40	678
FAX: Outgoing (Items)	159.50	117.00	34.60	19.20	57.60	172.40	182.20		128.40	1030.4
FAX: Outgoing (Admin)	15.50	17.80	2.00	6.60	15.20	1.40	12.80		10.20	97
MAIL: Incoming (Transmissions)	0.60	2.00	8.80	0.00	0.80	0.00	0.80		0.20	13.8
MAIL: Incoming (Items)	0.60	12.60	15.40	0.00	3.80	0.20	3.40		3.60	40.2
MAIL: Incoming (Admin)	0.60	0.40	0.00	0.00	1.40	0.00	0.00		0.00	3
MAIL: Outgoing (Transmissions)	0.20	2.60	0.00	0.00	1.00	0.00	2.00		0.00	6
MAIL: Outgoing (Items)	0.20	17.80	0.00	0.00	3.40	0.00	2.20		0.00	23.8
MAIL: Outgoing (Admin)	0.20	0.20	0.00	0.00	0.00	0.00	1.80		0.00	2.4
PHONE/COMPUTER										
Phone	19.55	21.80	3.00	4.00	16.00	6.20	21.40		7.80	119.3
EMail	7.95	2.40	1.20	0.40	1.60	0.20	2.00		6.60	30.3
Incoming	11.30	14.20	3.40	1.40	8.20	3.40	12.40		9.00	74.6
Outgoing	16.30	9.40	0.80	3.00	8.80	3.00	11.40		5.60	74.6
Sch Personnel	10.30	11.20	1.80	0.00	9.00	2.60	7.60		8.60	61.4
Student	6.10	8.20	0.20	3.80	3.00	3.40	6.80		3.00	40.6
Tutor/Marker	4.35	2.00	0.20	0.40	1.80	0.40	3.80		0.60	17.9
Other	6.75	2.60	1.60	0.20	4.60	0.00	5.60		3.20	31.3
% direct student contact	*22.18*	*33.88*	*4.76*	*86.36*	*17.05*	*53.13*	*29.06*		*20.83*	*27.14*

* based on one log for one 2-week period

Number of Phone Contacts by Tutor/Marker and School

LOCATIONS (PHONE/EMAIL):	Bus Ed (2)	Eng/Fr	Fine Arts	German	Home Ec	Ind Arts	Math (10)	Science*	Soc St (2)		TOTAL
Proj Office	13	4	3	1	6	0	11	0	16		67
District Office	5	6	0	0	9	0	4	0	0		29
Acme	6	17	0	6	3	0	5	0	5		48
Altario	4	4	0	0	2	0	6	0	1		21
Bassano	5	0	0	0	4	6	22	0	1		43
Carbon	5	5	1	1	9	3	8	0	4		41
Chamberlain (Grassy L)	1	3	2	0	0	0	3	0	0		10
Cluny Bow Valley	0	0	1	0	0	0	3	0	2		6
Coalhurst	2	0	0	0	1	0	4	0	1		10
Consort	1	3	0	2	0	1	3	0	1		12
Coronation	0	0	0	0	0	1	3	0	0		4
Delia	1	6	0	0	3	1	12	0	0		24
Duchess	8	3	0	0	5	1	4	0	11		40
Endiang	2	14	0	0	0	1	4	0	0		23
Foremost	19	0	1	0	1	0	11	0	0		51
Gus Wetter (Castor)	1	1	0	4	0	0	5	0	1		13
Hussar	7	11	0	0	1	0	4	0	12		42
Irvine	1	1	0	0	0	0	3	0	0		6
Lomond	2	4	0	0	4	0	4	0	0		16
Manyberries	3	7	0	0	0	4	9	0	0		26
Morrin	9	5	0	0	3	3	3	0	3		35
New Cessford	0	2	0	0	12	2	6	0	2		24
Noble Central	1	3	0	0	1	0	3	0	2		11
Rosemary	11	3	2	4	5	5	10	0	3		54
Senator Gershaw (Bow I)	0	0	0	0	0	0	3	0	0		3
Standard	0	2	0	0	0	0	6	0	1		9
Stirling	0	1	2	0	0	0	7	0	0		10
Tilley	2	7	2	1	4	2	4	0	1		25
Warner	0	0	0	0	0	0	3	0	0		3
Youngstown	2	0	0	0	2	0	3	0	0		9

* based on one log for one 2-week period

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APPENDIX D

SUMMARY OF COORDINATOR LOGS

Average Time/Week in Hours from Coordinator Logs — Schools Continuing from Phase 1

	Altario	Carbon	Cessfor	Cluny	Delia	Endiang	Hussar	Lomond	Manybe	Morrin	Rosema	Tilley	Youngst
Supervision in the DLP room	2.15	2.10	5.45	0.65		1.10	1.60	0.00		3.06	3.25	0.00	0.00
Advisement	0.00	0.00	0.00	0.50		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Consultation	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Consultation with the evaluator	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Discipline for tardy lessons	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Consultation and FAX transmission	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Consultation with the intern	0.00	0.00	0.00	0.00		0.00	0.20	0.00		0.00	0.00	0.05	0.00
Consultation with the supervising teacher	0.00	0.00	0.00	0.00		0.00	0.00	0.10		0.00	0.00	0.00	0.00
Consultation for the EMAIL system	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Consultation for AGT troubleshooting	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
TC preparation and supervision	0.00	0.40	0.00	0.00		0.90	0.15	0.00		0.00	0.10	0.05	0.00
Filling in forms for Dr. Clark	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Sign student to ASPEN	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Checking students in the class	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
ASPEN	0.00	0.00	0.00	0.00		0.15	0.00	0.00		0.00	0.85	0.05	0.00
Tracking down textbooks	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.10	0.00
Record keeping	0.00	0.00	2.65	0.90		0.25	0.00	0.80		0.00	0.40	0.95	0.00
FAX transmission	2.50	0.00	2.40	0.05		1.20	0.00	4.00		3.06	2.55	1.30	1.00
Advise student	0.00	0.00	0.00	0.85		0.15	0.00	0.00		0.00	0.10	0.15	0.00
Ordering material	0.05	0.00	0.05	0.00		0.00	0.00	0.00		0.00	0.10	0.00	0.00
Consultation with other schools	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Consultation with the TM	0.00	0.40	0.05	0.05		0.45	0.05	0.00		0.00	0.70	0.20	0.00
Tutoring	0.00	2.10	0.00	0.95		0.40	0.00	0.45		0.00	0.00	0.75	0.00
Sort/file/ record incoming lessons	0.75	0.20	2.75	0.00		0.40	0.00	1.15		0.00	1.05	1.10	0.25
Discuss the DLP procedure with new registr.	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Preparation of registration file	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Consultation with the principal	0.00	0.00	0.00	0.00		0.00	0.00	0.05		0.00	0.40	0.05	0.00
Send memos re. phys exam and M23 report	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Prep. for DLP report cards	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.10	0.05	0.00
Memo to Delia re. Chem paper	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Revise school policy re. attendance for DLP	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Reorganize DLP file system	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.05	0.00
Discuss DLP with a parent	0.00	0.00	0.00	0.10		0.00	0.00	0.10		0.00	0.10	0.00	0.00
Reorg./discuss timetable and completion w. stu.	0.00	0.00	2.30	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Consultation with FAX sales rep. and repairman	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Conference with the superintendent about DLP	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Draft letters to the TM	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Fill in the course offering sheet	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.10	0.00
Send a FAX to the TM	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Advise intern	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Registered a student	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Ordered materials for a late registrant	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Discuss the DLP with the ATA	0.00	0.00	0.00	0.00		0.25	0.00	0.00		0.00	0.00	0.00	0.00
Handouts lessons received	0.05	0.10	0.00	0.00		0.05	0.00	0.00		0.00	0.00	0.40	0.00
Discussed returned lessons with the students	0.00	0.00	0.00	0.00		0.20	0.00	0.00		0.00	0.00	0.10	0.00
Inserviced - Intern in Delia re. teleconvenor	0.00	0.00	0.00	0.00		0.05	0.00	0.00		0.00	0.00	0.00	0.00
Inservice F. Hubert Re. FAX memory	0.00	0.00	0.00	0.00		0.05	0.00	0.00		0.00	0.00	0.00	0.00
Read out the French 10/20 Dictee	0.00	0.00	0.00	0.00		0.90	0.00	0.00		0.00	0.00	0.00	0.00
Prepare cover sheets	0.00	0.00	0.00	0.00		0.10	0.00	0.00		0.00	0.00	0.00	0.00
Filled out logsheets	0.00	0.00	0.00	0.00		0.15	0.00	0.00		0.00	0.00	0.10	0.00

	Acme	Bassand	Bow Isl	Castor	Coalhu	Consort	Coronat	Duchess	Foremo	GrassyL	Irvine	Noblefo	Standar	Stirling	Warner
Supervision in the DLP room	2.30	7.67	0.95	0.00	2.80	2.25	0.00	8.90	0.00	8.75	0.00	0.00	12.00	0.00	0.00
Advisement	0.10	0.00	0.20	0.00	0.00	0.00	0.90	0.00	0.00	0.00	0.25	0.00	0.00	0.40	0.00
Consultation	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.00
Consultation with the evaluator	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Discipline for tardy lessons	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consultation and FAX transmission	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consultation with the intern	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00
Consultation with the supervising teacher	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.20	0.00
Consultation for the EMAIL system	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consultation for AGT troubleshooting	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TC preparation and supervision	0.10	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00
Filling in forms for Dr. Clark	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sign student to ASPEN	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Checking students in the class	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.75
ASPEN	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tracking down textbooks	0.00	0.00	1.25	0.00	0.00	0.10	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.75
Record keeping	0.00	0.00	1.50	1.50	0.10	0.00	0.00	3.20	0.05	0.00	2.40	0.50	0.00	1.10	2.00
FAX transmission	0.00	0.33	0.00	3.65	0.20	0.70	0.45	8.25	0.35	3.50	2.25	3.00	0.75	4.20	3.75
Advise student	0.00	0.00	0.00	1.00	0.15	0.00	0.00	0.70	0.35	0.00	0.45	0.00	1.00	0.90	1.50
Ordering material	0.00	0.00	0.05	0.00	0.00	0.05	0.00	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.25
Consultation with other schools	0.05	0.00	0.05	0.00	0.05	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.50
Consultation with the TM	0.05	0.25	0.80	0.25	0.15	0.05	0.00	0.25	0.35	0.00	0.05	0.25	0.00	0.05	0.50
Tutoring	2.30	0.00	0.00	0.35	1.20	0.00	0.00	1.20	0.30	0.00	0.00	1.75	0.00	0.00	0.50
Sort/file/ record incoming lessons	0.00	0.50	0.00	0.00	2.10	0.00	0.30	6.95	0.20	1.00	0.00	0.75	0.00	0.00	0.00
Discuss the DLP procedure with new registr.	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Preparation of registration file	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consultation with the principal	0.00	0.17	0.00	0.00	0.05	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Send memos re. phys exam and M23 report	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Prep. for DLP report cards	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.50	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Memo to Delia re. Chem paper	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Revise school policy re. attendance for DLP	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Reorganize DLP file system	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Discuss DLP with a parent	0.00	0.00	0.00	0.00	0.10	0.00	0.05	0.00	0.00	0.00	0.00	0.00	3.25	0.00	0.00
Reorg./discuss timetable and completion w. stu.	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00
Consultation with FAX sales rep. and repairman	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.00
Conference with the superintendent about DLP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.00
Draft letters to the TM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00
Fill in the course offering sheet	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.00
Send a FAX to the TM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00
Advise intern	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Registered a student	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ordered materials for a late registrant	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Discuss the DLP with the ATA	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Handouts lessons received	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Discussed returned lessons with the students	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Inserviced - Intern in Delia re. teleconvenor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Inservice F. Hubert Re. FAX memory	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Read out the French 10/20 Dictee	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Prepare cover sheets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Filled out logsheets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Average Time/Week in Hours from Coordinator Logs — Schools Continuing from Phase 1

	Altario	Carbon	Cessfor	Cluny	Delia	Endiang	Hussar	Lomond	Manybe	Morrin	Rosems	Tilley	Youngst
Contacted Drumheller RE. FAX	0.00	0.00	0.00	0.00		0.05	0.00	0.00		0.00	0.00	0.00	0.00
Inservice/Advisement with Tilley co-ordinator	0.00	0.00	0.00	0.00		0.05	0.00	0.00		0.00	0.00	0.00	0.00
Recieve transmission	0.00	0.00	0.05	0.00		0.00	0.00	0.05		0.00	0.00	0.00	0.50
Send transmission	0.00	0.30	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.10	0.50
Phone Barrhead over delayed course material	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.50
Administer/supervise a test	0.00	0.40	0.00	0.00		0.00	0.00	1.20		0.00	0.05	3.40	1.50
Check the lesson status of students	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.25
Resend pages through the FAX	0.05	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.10	0.00	0.00
Contact the TM re. school closure	0.05	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Finding and advising students of test	0.05	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Going over the lessons with the intern	0.10	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Phone another school for texts	0.05	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Checking if there was enough binders for stu.	0.05	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Taking the answer sheets out of the stu. books	0.05	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Phone parents re. late lessons and tests	0.10	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Counsel student	0.00	0.15	0.00	0.00		0.00	0.15	0.00		0.00	0.10	0.00	0.00
Tried to FAX to Duchess unsuccessfully	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Tried to FAX to Strathmore partly successful	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Phoned Consort - find out what did wrong	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Counsel parent /student	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Photocopying	0.00	0.00	0.00	0.00		0.10	0.00	0.40		0.00	0.55	0.35	0.00
Marking	0.00	0.00	0.00	0.00		0.00	0.00	0.05		0.00	0.15	0.15	0.00
Check over course material	0.00	0.00	0.00	0.40		0.00	0.00	0.00		0.00	0.00	0.05	0.00
Adjust the FAX machine	0.00	0.00	0.00	0.05		0.00	0.00	0.00		0.00	0.00	0.05	0.00
Notes to the TM about finals	0.00	0.00	0.00	0.00		0.00	0.00	0.05		0.00	0.00	0.00	0.00
EMAIL	0.00	0.00	0.00	0.00		0.00	0.00	0.10		0.00	0.00	0.25	0.00
Attempt to FAX	0.00	0.00	0.00	0.00		0.00	0.00	0.20		0.00	0.00	0.00	0.00
Learn to use the speed dial and memory	0.00	0.00	0.00	0.00		0.00	0.00	0.15		0.00	0.00	0.00	0.00
Discuss English 33 with students	0.00	0.00	0.00	0.00		0.00	0.00	0.05		0.00	0.00	0.00	0.00
Planning	0.00	0.00	0.00	0.00		0.00	0.90	0.00		0.00	0.00	0.00	0.00
Disscussion with the staff	0.00	0.00	0.00	0.00		0.00	0.15	0.00		0.00	0.00	0.00	0.00
General duties for DLP	0.00	0.00	0.00	0.00		0.00	0.30	0.00		0.00	0.00	0.00	0.00
Review student program and progress	0.00	0.00	0.00	0.00		0.00	0.25	0.00		0.13	0.35	0.20	0.00
Answer messages	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.30	0.30	0.00
Finalize registration on the computer	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.15	0.00	0.00
Lesson completion schedules - on computer	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.55	0.00	0.00
Prepare bulletin board charts	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.25	0.00	0.00
Dubbing tapes for German 10	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.10	0.00	0.00
Explain DLP to guests	0.00	0.00	0.00	0.00		0.00	0.30	0.00		0.00	0.30	0.00	0.00
Write a report for the principal	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Doing reports	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Recieve a phone call from a TM	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Distribute text and answer questions	0.00	0.00	0.05	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Check messages and student problems	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.10	0.05	0.00
Reviewed outline for course and exams	0.00	0.00	0.00	0.00		0.00	0.00	0.20		0.00	0.25	0.15	0.00
Talked with the county who brought dividers	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.05	0.00
Set up DLP room with the dividers/seat plan	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.30	0.00
New intern viewing program	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.30	0.00
Consult secretary re. DLP forms	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.10	0.00
Phone calls	0.00	0.40	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.10	0.00

	Acme	Bassand	Bow Isl	Castor	Coalhu	Consort	Coronat	Duchess	Foremo	Grassyl	Irvine	Noblefo	Standar	Stirling	Warner
Contacted Drumheller RE. FAX	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Inservice/Advisement with Tilley co-ordinator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Recieve transmission	0.00	0.33	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Send transmission	0.00	0.00	0.00	0.00	1.10	0.00	0.00	0.00	0.55	0.00	0.00	0.00	0.00	0.00	0.00
Phone Barrhead over delayed course material	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Administer/supervise a test	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.15	0.20	0.50	0.10	0.00	0.00	0.20	0.00
Check the lesson status of students	0.00	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Resend pages through the FAX	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Contact the TM re. school closure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Finding and advising students of test	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.05	0.25	0.00	0.00	0.00	0.00	0.00
Going over the lessons with the intern	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00
Phone another school for texts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Checking if there was enough binders for stu.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Taking the answer sheets out of the stu. books	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phone parents re. late lessons and tests	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Counsel student	0.00	0.17	0.00	0.00	0.05	0.05	0.05	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00
Tried to FAX to Duchess unsuccessfully	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tried to FAX to Strathmore partly successful	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phoned Consort - find out what did wrong	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Counsel parent /student	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Photocopying	0.00	0.17	0.00	0.10	0.00	0.00	0.00	1.15	0.10	0.50	0.00	3.00	0.00	0.00	0.00
Marking	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00
Check over course material	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Adjust the FAX machine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Notes to the TM about finals	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EMAIL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Attempt to FAX	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Learn to use the speed dial and memory	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Discuss English 33 with students	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Planning	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00
Disscussion with the staff	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
General duties for DLP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Review student program and progress	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Answer messages	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Finalize registration on the computer	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lesson completion schedules - on computer	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Prepare bulletin board charts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dubbing tapes for German 10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Explain DLP to guests	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Write a report for the principal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Doing reports	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Recieve a phone call from a TM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Distribute text and answer questions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Check messages and student problems	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Reviewed outline for course and exams	0.00	0.00	0.00	0.20	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Talked with the county who brought dividers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Set up DLP room with the dividers/seat plan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
New intern viewing program	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consult secretary re. DLP forms	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phone calls	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Average Time/Week in Hours from Coordinator Logs — Schools Continuing from Phase 1

	Altario	Carbon	Cessfor	Cluny	Delia	Endiang	Hussar	Lomond	Manybe	Morrin	Rosems	Tilley	Youngst
Put displays and the bulletin board	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Letter to parents re. cost & stud. who are behinc	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Talk to Aide about the procedure	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Check the phone sheet for long dist. calls, DLP	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Phone G. Logan	0.00	0.00	0.00	0.00		0.10	0.00	0.00		0.00	0.00	0.10	0.00
Attendance	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Guidance meeting	0.00	0.00	0.00	0.00		0.00	0.00	0.10		0.00	0.00	0.00	0.00
Principal-teacher conference about a student	0.05	0.00	0.00	0.00		0.00	0.00	0.10		0.00	0.00	0.00	0.00
Go over a lesson with student	0.00	0.60	0.00	0.00		0.00	0.00	0.15		0.00	0.00	0.00	0.00
Organize DLP for next year	0.00	0.00	0.00	0.00		0.00	0.15	0.30		0.00	0.00	0.00	0.00
Wrote a work experience form	0.00	0.00	0.00	0.00		0.00	0.00	0.10		0.00	0.00	0.00	0.00
Compile stats for the school board	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Getting information for project office	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Clear memory on the FAX	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Answered correspondence	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.15	0.00
Prepare lessons for the mail	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.15	0.00
Letter to Maria about course info for next year	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.05	0.00
Conference with Vice-Principal re. DLP status	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.05	0.00
Checked on numbers of students	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Phone to get report card marks &check prog	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Update the reports to the principal	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.10	0.00	0.00
Schedule oral French	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.05	0.00	0.00
Work on P.R. for School and DLP	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.20	0.00	0.00
Contact SAIT for TC FR 20	0.00	0.00	0.00	0.00		0.05	0.00	0.00		0.00	0.00	0.00	0.00
Arr. to dicuss DLP with David Thompson school	0.00	0.00	0.00	0.00		0.30	0.00	0.00		0.00	0.00	0.00	0.00
Establish estimates for DLP credit load	0.00	0.00	0.00	0.00		0.45	0.00	0.00		0.00	0.00	0.00	0.00
Discipline for copying	0.00	0.00	0.00	0.00		0.15	0.00	0.00		0.00	0.00	0.00	0.00
TC demo. for parents	0.00	0.00	0.00	0.00		0.10	0.00	0.00		0.00	0.00	0.00	0.00
Parent Interviews	0.00	0.00	0.00	0.00		0.10	0.00	0.00		0.00	0.00	0.00	0.00
Describe DLP courses	0.00	0.00	0.00	0.00		0.10	0.00	0.00		0.00	0.00	0.00	0.00
Hear student appeal re. suspension	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Fun awards for DLP students	0.00	0.00	0.00	0.00		0.00	0.10	0.00		0.00	0.00	0.00	0.00
Substitute supervised	0.00	0.00	0.00	0.00		0.00	0.10	0.00		0.00	0.00	0.00	0.00
Phoned Pitney-Bowes re. FAX machine	0.05	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.10	0.00	0.00
Discussed resources for English with intern	0.10	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Tracking down unreturned books	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Collated lessons for courier	0.00	0.10	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Set up an exam schedule	0.00	0.35	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.25	0.00
Work done by other staff/students	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.75	0.00
Consultation for computer network	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Preparing for midterms	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Supervise work experience student	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Discuss TC report for the year end	0.00	0.00	0.00	0.00		0.05	0.00	0.00		0.00	0.00	0.00	0.00
Went through a test	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Discussed midterm with student and plans	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Clear the memory on the FAX	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Reactions to policies manuel draft	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Discussed final exam prep w. prin. & intern	0.05	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Fix the FAX machine (toner, paper jam etc)	0.00	0.00	0.00	0.00		0.05	0.00	0.00		0.00	0.10	0.00	0.00
Phone Duchess coordinator about the FAX	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00

	Acme	Bassand	Bow Isl	Castor	Coalhur	Consort	Coronat	Duchess	Foremo	Grassyl	Irvine	Noblefo	Standar	Stirling	Warner
Put displays and the bulletin board	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Letter to parents re. cost & stud. who are behinc	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Talk to Aide about the procedure	0.00	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Check the phone sheet for long dist. calls, DLP	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phone G. Logan	0.05	0.08	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Attendance	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Guidance meeting	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Principal-teacher conference about a student	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Go over a lesson with student	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Organize DLP for next year	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wrote a work experience form	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Compile stats for the school board	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Getting information for project office	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Clear memory on the FAX	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Answered correspondence	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00
Prepare lessons for the mail	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Letter to Marla about course info for next year	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Conference with Vice-Principal re. DLP status	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Checked on numbers of students	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00
Phone to get report card marks &check prog	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00
Update the reports to the principal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Schedule oral French	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Work on P.R. for School and DLP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Contact SAIT for TC FR 20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Arr. to dicuss DLP with David Thompson school	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Establish estimates for DLP credit load	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Discipline for copying	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TC demo. for parents	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parent Interviews	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Describe DLP courses	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hear student appeal re. suspension	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fun awards for DLP students	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substitute supervised	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phoned Pitney-Bowes re. FAX machine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Discussed resources for English with intern	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tracking down unreturned books	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Collated lessons for courier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Set up an exam schedule	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Work done by other staff/students	0.00	0.00	0.00	3.70	0.00	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consultation for computer network	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Preparing for midterms	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Supervise work experience student	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Discuss TC report for the year end	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Went through a test	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00
Discussed midterm with student and plans	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Clear the memory on the FAX	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.00
Reactions to policies manuel draft	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Discussed final exam prep w. prin. & Intern	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fix the FAX machine (toner, paper jam etc)	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phone Duchess coordinator about the FAX	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Average Time/Week in Hours from Coordinator Logs — Schools Continuing from Phase 1

	Altario	Carbon	Cessfor	Cluny	Delia	Endiang	Hussar	Lomond	Manybe	Morrin	Rosema	Tilley	Youngst
Phone Rosemary for toner	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Test preparation	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Interview the student	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Conference with the Aide	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Conference re: registration and materials	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Consult T. Gee	0.00	0.00	0.00	0.00		0.05	0.00	0.00		0.00	0.10	0.00	0.00
U of C Evaluation	0.00	0.00	0.00	0.00		0.00	0.35	0.00		0.00	0.30	0.05	0.00
Organization of 88-89	0.00	0.00	0.00	0.00		0.00	0.05	0.00		0.00	0.00	0.00	0.00
Film crew from Calgary	0.00	0.00	0.00	0.00		0.00	0.00	0.40		0.00	0.40	0.00	0.00
Supervised another teacher's class	0.00	0.00	0.00	0.00		0.00	0.00	0.60		0.00	0.00	0.00	0.00
Consultation with Wainwright	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.15	0.00	0.00
Prepare for and receive visitors fr. England	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.50	0.00	0.00
Administrative tasks	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Get sched. and cards ready for registration	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.10	0.00
Call from Lilianne	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.10	0.00
Phone John to set up schedule	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.05	0.00
Computer set-up	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.25	0.00
Attend workshop	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Read FAX materials	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
Read new DLP manuel	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00	0.00
TOTAL TIME	6.25	7.60	15.75	4.50	0.00	8.45	4.80	10.85	0.00	6.25	15.00	13.50	4.50

Average Time/Week in Hours from Coordinator Logs — Schools ing ... 2

	Acme	Bassand	Bow Isl	Castor	Coalhu	Consort	Coronat	Duchess	Foremo	Grassyl	Irvine	Noblefo	Standar	Stirling	Warner
Phone Rosemary for toner	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Test preparation	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interview the student	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Conference with the Aide	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Conference re: registration and materials	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consult T. Gee	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
U of C Evaluation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Organization of 88-89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Film crew from Calgary	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Supervised another teacher's class	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consultation with Wainwright	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Prepare for and receive visitors fr. England	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Administrative tasks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00
Get sched. and cards ready for registration	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Call from Lilianne	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phone John to set up schedule	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Computer set-up	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Attend workshop	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00	0.00	0.00	0.00	0.00
Read FAX materials	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00
Read new DLP manual	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00
TOTAL TIME	7.05	12.58	4.80	11.15	9.05	4.00	2.25	33.45	3.10	21.25	6.05	10.00	20.75	8.50	10.50

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APPENDIX E

SUMMARY OF STUDENT INTERVIEWS

Student Summary - Schools Continuing from Phase 1

Question	Altario	Carbon	Cession	Cluny	Delia	Endiang	Hussar	Lomond	Manybe	Morrin	Rosema	Tilley	Youngst	TOTAL
0. Interviewed last year - Yes	2	14	2	0	1	0	3	3	6	4	4	6	1	46
0. Interviewed last year - No	15	14	5	10	11	9	16	11	10	17	13	14	4	149
TOTAL INTERVIEWED	17	28	7	10	12	9	19	14	16	21	17	20	5	195
1. Accounting 10					1		1	7			1	3		13
1. Accounting 20								1				1		2
1. Accounting 30								1	3					4
1. Agriculture 10	1		1					1			2		1	6
1. Art 10		3		1			1		3			1		9
1. Art 20				1							2			3
1. Basic Business	5						1				1	1		8
1. Biology 10					2					1			1	4
1. Biology 20								3	1		1			5
1. Biology 30				1		1			2					4
1. Building Construction		1	3		1			2		1	1			9
1. Career and life management 20								1		2				3
1. Chem 10										1				1
1. Chem 20	2									1				3
1. Chem 30						1								1
1. Clothing and Textiles 10											3			3
1. Drafting 10								3		2	2	2		9
1. Electronics												1		1
1. English 10														0
1. English 13	3	5						1	1	2		1		13
1. English 20														0
1. English 23		1			1				1					3
1. English 30														0
1. English 33	1	1		2				3			1	4		12
1. Food Science							1				1		1	3
1. French 10	1	2	3	1		9		4	6	1	2	6		36
1. French 20	1	4				1	3							9
1. French 30							2							2
1. General Psychology 20	1	2		1			2				1			7
1. German 10		1								1	2			4
1. Health and Personal Development		1						2				2		5
1. Industrial Arts														0
1. Industrial Ed	1	1	4		4				1	2		3		16
1. Law 20	1	1				1	4				4			11
1. Law 30							1					1		2
1. Literature 21											1			1
1. Marketing 20	1											2		3
1. Math 10									1					1
1. Math 13		7						1				1		9
1. Math 14														0
1. Math 15		5		2				4	3		1	1		16
1. Math 20														0
1. Math 23	1	9									1	1	1	13
1. Math 24								1						1
1. Math 25											1	1		2
1. Math 30		3							2			1		6
1. Math 31					2				2					4
1. Math 33		1					1			1			2	5
1. Mechanics 12	3	*		2	3		4		3	3	1	5		24
1. Occupations		1						1				4		6
1. Personal Living Skills 10	1	3		1				5			2	1		13
1. Personal Living Skills 30				2			1				2	2		7
1. Personal Psychology 20		1										1		2
1. Physics 10		2			1			4						7
1. Physics 20		1								1				2

Question	Acme	Bassano	Bow Isl	Castor	Coalhu	Consort	Coronat	Duchess	Foremo	Grassy	Irvine	Noblefo	Standar	Stirling	Warner	TOTAL
0. Interviewed last year - Yes	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3
0. Interviewed last year - No	24	24	9	22	25	23	4	15	10	11	7	12	22	18	11	237
TOTAL INTERVIEWED	24	24	9	22	25	23	4	18	10	11	7	12	22	18	11	240
1. Accounting 10	0	2			1				2	4		4				13
1. Accounting 20	1			1					3	2					2	9
1. Accounting 30	0			1	1			2	3	1					1	9
1. Agriculture 10	0							1								1
1. Art 10	0	1		1						2				2		6
1. Art 20																0
1. Basic Business	0				1			1					1			3
1. Biology 10	0				1			1						1		3
1. Biology 20													1			1
1. Biology 30	0												2			2
1. Building Construction	0	4						1								5
1. Career and life management 20	0	1													3	4
1. Chem 10	0															0
1. Chem 20	1					1								2		4
1. Chem 30	0	1		1												2
1. Clothing and Textiles 10								1								1
1. Drafting 10	0						1	2		2				1		6
1. Electronics																0
1. English 10	2		1													3
1. English 13	4					1							4			9
1. English 20	2					1										3
1. English 23	4												4			8
1. English 30	1															1
1. English 33	0						1							1		2
1. Food Science	0															0
1. French 10	2									1		1				4
1. French 20	1					1				2		3				7
1. French 30	0					1										1
1. General Psychology 20	4	1		2	2	2	1	2	4	1		3	5		2	29
1. German 10	1															1
1. Health and Personal Development	0					1						1	1			3
1. Industrial Arts		1														1
1. Industrial Ed	0	2				1						1		1		5
1. Law 20	0	3		2	2	1		1	1		1					11
1. Law 30	3	3			1	2			2							11
1. Literature 21																0
1. Marketing 20	0															0
1. Math 10	0												1	2		3
1. Math 13	1	1		1		3		1	1				3	1		12
1. Math 14			2													2
1. Math 15	0	6				3	1	3								13
1. Math 20	1			1												2
1. Math 23	1	3	2		1	1							1			9
1. Math 24	0													2		2
1. Math 25	0	4	1					3	1					2		11
1. Math 30	1	1		2										1		5
1. Math 31	2	1		3	2	3		3					1	3		18
1. Math 33	1	2	1		1	3										8
1. Mechanics 12	0	4		1	2	3		1			1		3		1	16
1. Occupations	0					1										1
1. Personal Living Skills 10	0				5											5
1. Personal Living Skills 30								2								2
1. Personal Psychology 20	4			1				1	1							7
1. Physics 10	0			1					1							2
1. Physics 20	1					1										2

Question	Altario	Carbon	Ceeston	Cluny	Delia	Endiang	Hussar	Lomond	Manybe	Morrin	Rosemy	Tilley	Youngst		TOTAL
1. Physics 30											1				1
1. Psychology 30															0
1. Reading 10	1														1
1. Record Keeping 10		4			1			4		1	1	7			18
1. Religion 30															0
1. Science 11	2	5						3	3	3		2	1		19
1. Shorthand											1				1
1. Social 10					1										1
1. Social 13															0
1. Social 20				2				1							3
1. Social 30							1								1
1. Sociology 20				2	1					1	1				5
1. Sociology 30															0
1. Sociological Institutions 20							1								1
1. Typing 10				1			1	5		1		2			10
1. Typing 20				1		1									2
1. Typing 30								1			2				3
1. Western Canadian History 20		2								1					3
1. World Geography 30	3														3
2. DLP Courses last year - yes	6	18	3	1	4		5	5	7	6	8	12	1		74
2. DLP Courses last year - no	10	10	4	9	8	9	14	9	9	15	11	8	4		120
2.1 Differences - none	4	13			3		3			5	1	3	1		33
2.1 Teleconferencing for french	1														1
2.1 Rosemary was better equipped					1										1
2.1 Lessons come back more quickly		1	3	1							1	3			9
2.1 Teacher more time with students										1					1
2.1 Take more time to do lesson		1													1
2.1 Knew what to do		2					1				5	5			13
2.1 Easier course		1													1
2.1 More emphasis for lessons to be done		1													1
2.1 % for tests don't count for as much		1													1
2.1 School time periods have increased		1													1
2.1 More contact with the TM				1					2						3
2.1 TM was more organized									1						1
2.1 More ways of getting help											1				1
2.1 The scheduling was more rigid								1				1			2
2.1 The DLP room was quieter												2			2
2.1 The course information was more specific												1			1
3.0 Correspondence school courses before - Yes	3	2		3	1		4	4	0	3	1	2	2		25
3.0 Correspondence school courses before - No	8	26	7	7	11	9	15	10	16	18	16	18	3		164
3.1.1 When - Within the last two years	3	2		3	1		3	4		3		2	2		23
3.1.1 When - Previously				0							1				1
3.1.2 What courses?															
3.1.2 Accounting 10															0
3.1.2 Art 20				1											1
3.1.2 Basic Business 20															0
3.1.2 Basic Psychology															0
3.1.2 Biology 10															0
3.1.2 Biology 20															0
3.1.2 Building Construction 12	1				1								1		3
3.1.2 Camera use															0
3.1.2 Career and Life Management															0
3.1.2 Chemistry 10															0
3.1.2 Chemistry 20															0

Question	Acme	Bassand	Bow Isl	Castor	Coalhur	Consort	Coronat	Duchess	Foremo	Grassy	Irvine	Nobleto	Standar	Stirling	Warner	TOTAL
1. Physics 30	0				5						4		1			10
1. Psychology 30													1			1
1. Reading 10	0															0
1. Record Keeping 10	1				1	1		4								7
1. Religion 30	0					1		1								2
1. Science 11	0	1	1												3	5
1. Shorthand																0
1. Social 10	0			1								1				2
1. Social 13			1					1					1			3
1. Social 20		1	1	3					1				3			9
1. Social 30				5					1							6
1. Sociology 20	1	1	2		1	1		2		1			2			11
1. Sociology 30	0					1										1
1. Sociological Institutions 20																0
1. Typing 10	0					1										1
1. Typing 20	0			1		1										2
1. Typing 30																0
1. Western Canadian History 20	0	2														2
1. World Geography 30	2				3	1			2		1					9
2. DLP Courses last year - yes	2	1				2							1			6
2. DLP Courses last year - no	22	23	9	22	25	21	4	18	10	11	7	12	21	18	11	234
2.1 Differences - none	1	1				1							1			4
2.1 Teleconferencing for french	0															0
2.1 Rosemary was better equipped	0															0
2.1 Lessons come back more quickly	0					1										1
2.1 Teacher more time with students	0															0
2.1 Take more time to do lesson	0															0
2.1 Knew what to do	0				1											1
2.1 Easier course	0				4											4
2.1 More emphasis for lessons to be done	1															1
2.1 % for tests don't count for as much	0				1											1
2.1 School time periods have increased	0															0
2.1 More contact with the TM																0
2.1 TM was more organized																0
2.1 More ways of getting help																0
2.1 The scheduling was more rigid																0
2.1 The DLP room was quieter																0
2.1 The course information was more specific																0
3.0 Correspondence school courses before - Yes	7	7	5	4	9	3	1	13	1	1	0	2	3	1	3	60
3.0 Correspondence school courses before - No	17	17	4		16	18	3	5	9	10	7	10	19	17	8	160
3.1.1 When - Within the last two years	7	7	5	4	6	2	1	5	1	1		2	3	1	3	48
3.1.1 When - Previously	0		1		3	1										5
3.1.2 What courses?																0
3.1.2 Accounting 10						1							1			2
3.1.2 Art 20																0
3.1.2 Basic Business 20					1											1
3.1.2 Basic Psychology															1	1
3.1.2 Biology 10				2	1											3
3.1.2 Biology 20		1														1
3.1.2 Building Construction 12													1			1
3.1.2 Camera use		1														1
3.1.2 Career and Life Management					1											1
3.1.2 Chemistry 10					1			2								3
3.1.2 Chemistry 20		1														1

Student Summary - Schools Continuing from Phase 1

Question	Altario	Carbon	Cessfor	Cluny	Delia	Endiang	Hussar	Lomond	Manybe	Morrin	Rosema	Tilley	Youngst		TOTAL
3.1.2 Drafting					1										1
3.1.2 Electronics				1											1
3.1.2 English 10															0
3.1.2 English 13				1											1
3.1.2 English 33								1							1
3.1.2 French A,B,C															0
3.1.2 French 10							2								2
3.1.2 German 10															0
3.1.2 Industrial Ed		1													1
3.1.2 Health and Personal Development															0
3.1.2 Law 20															0
3.1.2 Letter Writing										1					1
3.1.2 Marketing	1														1
3.1.2 Math 9															0
3.1.2 Math 10										1					1
3.1.2 Math 13		1													1
3.1.2 Math 14															0
3.1.2 Math 15								4			1	1			6
3.1.2 Math 20															0
3.1.2 Math 23															0
3.1.2 Mechanics 12	1						1						2		4
3.1.2 Mechanics 20															0
3.1.2 Personal living skills															0
3.1.2 Reading															0
3.1.2 Science 11							1			1					2
3.1.2 Social 20															0
3.1.2 Spanish 10															0
3.1.2 Typing 10												1			1
3.1.2 Typing 20															0
3.1.2 World geography 30															
3.1.3 Differences between DLP and correspondence?															
3.1.3 None	2				1			1		2					6
3.1.3 Lessons back faster		1		3			3			1	1		2		11
3.1.3 There were deadlines for DLP		1						1				1			3
3.1.3 Contact tutor/marker		1													1
3.1.3 Help available with DLP							1	1			1	1			4
3.1.3 Spend more time in class than on own	1														1
3.1.3 More tests and quizzes - which help				1											1
3.1.3 More feedback with correspondence															0
3.1.3 DLP courses have more work to do															0
3.1.3 DLP courses don't have as much structure															0
3.1.3 DLP is more organized															0
3.1.3 DLP courses get completed faster															0
3.1.3 DLP courses have all of the material included															0
3.1.3 DLP requires more independent work															0
3.1.3 DLP help students more in explaining concepts															0
3.1.3 DLP is easier because there are more facts												1			1
3.1.3 Have to do DLP															0
3.1.3 TM support is good							2								2
3.1.3 In Corres. there is a problem with motivation							1								1
4. When do most DLP work?															
4. Regularly scheduled periods	13	16	6	7	11	9	7	7	10	13	8	18	2		127
4. Spares	1	2		1	1		1		1	2			2		11
4. Outside school hours	3	18	1	2	1	3	12	7	5	11	10	2	5		80
5. Where did you do most of your DLP work?															
5. At home	4	19	1	2		3	10	6	5	13	9	2	5		79

Student Summary - Schools beginning in Phase 2

Question	Acme	Bassano	Bow Isl	Castor	Coalhur	Consort	Corona	Duchess	Foremo	Grassy	Irvine	Nobleto	Standar	Stirling	Warner	TOTAL
3.1.2 Drafting																0
3.1.2 Electronics	1							1								2
3.1.2 English 10	1															1
3.1.2 English 13																0
3.1.2 English 33																0
3.1.2 French A,B,C								1								1
3.1.2 French 10			1			1										2
3.1.2 German 10		1		1												2
3.1.2 Industrial Ed		1														1
3.1.2 Health and Personal Development				1			1									2
3.1.2 Law 20					1	1										2
3.1.2 Letter Writing																0
3.1.2 Marketing																0
3.1.2 Math 9			1													1
3.1.2 Math 10	1			1												2
3.1.2 Math 13								1								1
3.1.2 Math 14			1													1
3.1.2 Math 15					2							1	1			4
3.1.2 Math 20													1			1
3.1.2 Math 23																0
3.1.2 Mechanics 12			1					3	1	1			1	1	1	9
3.1.2 Mechanics 20		2														2
3.1.2 Personal living skills													1			1
3.1.2 Reading												1	1			2
3.1.2 Science 11			2													2
3.1.2 Social 20													1			1
3.1.2 Spanish 10			1													1
3.1.2 Typing 10		1			1											2
3.1.2 Typing 20					1											1
3.1.2 World geography 30															1	1
3.1.3 Differences between DLP and correspondence?																0
3.1.3 None		3	2	3	1								1	1	2	13
3.1.3 Lessons back faster	4	2			3	2	1	1	1	1			2		1	18
3.1.3 There were deadlines for DLP	1					1		1								3
3.1.3 Contact tutor/marker	3	1		1	1							1				7
3.1.3 Help available with DLP		1	1									1	2			5
3.1.3 Spend more time in class than on own	1				2											3
3.1.3 More tests and quizzes - which help								1								1
3.1.3 More feedback with correspondence									1							1
3.1.3 DLP courses have more work to do		1														1
3.1.3 DLP courses don't have as much structure		1														1
3.1.3 DLP is more organized		1														1
3.1.3 DLP courses get completed faster								1								1
3.1.3 DLP courses have all of the material included								1								1
3.1.3 DLP requires more independent work								1								1
3.1.3 DLP help students more in explaining concepts								1								1
3.1.3 DLP is easier because there are more facts			1													1
3.1.3 Have to do DLP			1													1
3.1.3 TM support is good																0
3.1.3 In Corres. there is a problem with motivation																0
4. When do most DLP work?																
4. Regularly scheduled periods	23	17	5	14	19	20	1	7	3	7	4	12	16	13	9	170
4. Spares	0		2		4		1		1				3	1	1	13
4. Outside school hours	3	7	2	10	8	7	2	11	1	4	3	5	3	6	4	76
5. Where did you do most of your DLP work?																
5. At home	3	7	2	11	12	9	2	11	2	4	2	5	3	7	3	83

Student Summary - Schools Continuing from Phase 1

Question	Altario	Carbon	Cessfor	Cluny	Delia	Endiang	Hussar	Lomond	Manybe	Morrin	Rosem	Tilley	Youngst	TOTAL
5. DL room	12	16	5	7	9	5	8	4	2	8	7	18		101
5. Library	1			1	1				7				3	13
5. Regular classroom		2			3	4			3	1			2	15
5. Other	1		1				1	4			1			8
6. Same pattern as for other courses? - Yes	14	20	4	5	10	7	14	8	10	16	13	14	3	138
6. Same pattern as for other courses? - No	3	8	3	5	2	2	5	8	6	5	4	8	2	57
7. Comparison of grades - DL Better	9	10	5	7	11	3	9	9	10	11	9	17	4	114
7. Comparison of grades - DL Same	9	12	2	2	1	5	10	5	6	13	6	3	1	76
7. Comparison of grades - DL Worse		9				1					2			12
8. Getting help -														
8. Didn't get help	2	3		1			2	1			1	1		11
8. Intern	3	5					4	1		2		4		19
8. Aide								1				1		2
8. Coordinator	1		2	3	2		3	7	1	2	2	13		36
8. T/M	4	8	4	5	8	5	12	9	11	5	14	11	1	95
8. Other teachers	11	14	3	5	8	8	10	5	13	12	7	9	5	108
8. Other students	5	14	7	2	8	1	7	3	8	11	12	11		87
8. Parents	3	8	3	1	3	1	5	4	3	1	5	2		37
8. Other		1	1	1	1		2		1		1	2	2	12
9. Resources - Usefulness														
9. Library books - very	1	1	1	2	2	1	3	2	2		3	6	2	26
9. Library books - somewhat	3	9	2	2	1	1	1	2	3		4	4	1	33
9. Library books - not	13	18	4	6	9	7	16	10	11	21	10	10	2	136
9. films - very				1										1
9. films - somewhat		1			3								1	5
9. films - not	17	27	7	9	9	9	19	14	16	21	17	20	4	189
9. videotapes/cassettes - very									2			3		5
9. videotapes/cassettes - somewhat		1			4		1	2	2			1		11
9. videotapes/cassettes - not	17	27	7	10	8	9	18	12	12	21	17	16	5	179
9. filmstrips - very														0
9. filmstrips - somewhat														0
9. filmstrips - not	17	28	7	10	12	9	19	14	16	21	17	20	5	195
9. audiotapes/cassettes - very	2	6		1		4	1	3	3	1	1	4		26
9. audiotapes/cassettes - somewhat			2		1	3	4	1	3	2	4	1		21
9. audiotapes/cassettes - not	15	22	5	9	11	2	14	10	10	19	12	15	5	149
9. kits - very			1		2			3		1		1		8
9. kits - somewhat	1	5			1					2	1		1	11
9. kits - not	16	23	6	10	9	9	19	11	16	19	16	19	4	177
9. other teachers in your school - very	4		3	5	2	4	9	7	8	2	6	6	1	57
9. other teachers in your school - somewhat	9	21		3	6	3	1	5	1	11	4	5	4	73
9. other teachers in your school - not	4	7	4	2	4	2	9	1	7	8	7	9		64
9. T/M - very	1	2	5	5	2	1	10	5	14		12	8		65
9. T/M - somewhat	10	14			8	4	1	5	1	13	3	2	3	64
9. T/M - not	6	12	2	5	3	4	8	4	1	8	2	10	2	67
10.1 Old correspondence material														
10.1.1 Reading level - too easy													1	1
10.1.1 Reading level - about right	11	13	2	3	6	5	1	3	5	9	3	9	5	75
10.1.1 Reading level - too difficult		4							1			2		7
10.1.2 Organization - easy to use	10	13	2	1	4	4	1	3	5	8	2	8	5	66
10.1.2 Organization - difficult to use	1	2		1	2	1			1	1	1	3	1	14
10.1.2a Why easy - well organized		10			2	4				6			3	25
10.1.2a Why easy - headings printed in bold		2			1							1	1	5
10.1.2a Why easy - knew most of the information													1	1
10.1.2a Why easy - direction were in the lesson	1													1

Question	Acme	Bassano	Bow Isl	Castor	Coalhu	Consort	Coronat	Duchess	Foremo	Grassy	Irvine	Nobleto	Standar	Stirling	Warner	TOTAL
5. DL room	21	14	4	9	7	19	2	7	7	3		10	7	7	5	122
5. Library	0	2	1	3	3	1				1			6	2		19
5. Regular classroom	2	1	2	4	11					2	2	2	6	5	5	42
5. Other	1								2	1	3					7
6. Same pattern as for other courses? - Yes	19	18	4	17	21	17	4	12	5	8	5	5	15	10	9	169
6. Same pattern as for other courses? - No	5	6	5	5	4	6		6	5	3	2	7	7	8	2	71
7. Comparison of grades - DL Better	19	13	5	9	13	9	3	12	6	4	2	10	16	9	5	135
7. Comparison of grades - DL Same	4	6	1	14	11	12		6	3	4	1		4	6	4	76
7. Comparison of grades - DL Worse	2	5	3	1	2	2	1		1	3	4	2	2	3	2	33
8. Getting help -																
8. Didn't get help	2		3		1			1					1	1	2	11
8. Intern	4															4
8. Aide	0	5				1		1								7
8. Coordinator	0	4	1		4	1	2	6	3	4		3	3	4	2	37
8. T/M	6	12	2	7	9	4	2	9	6	8	1	3	1			70
8. Other teachers	16	15	4	10	15	20		8	7	8	5	5	19	10		140
8. Other students	8	12	3	13	8	9	1	8	6	4	2	7	7	5	2	93
8. Parents	2	2	3	5		2	1	3		1			2	5	1	27
8. Other	1	1	1		1	2		2		1	2		1	1		13
9. Resources - Usefulness																
9. Library books - very	1	4	2		2	1		1		1	2		8			22
9. Library books - somewhat	13	3	2	5	6	8		5	1		1	4	2	2		52
9. Library books - not	10	17	5	17	17	15	4	12	9	10	4	6	12	16	11	167
9. films - very		2														2
9. films - somewhat					1	1						1				3
9. films - not	24	22	9	22	24	22	4	18	10	11	7	11	22	18	11	235
9. videotapes/cassettes - very		2				1		1			1		2	1		8
9. videotapes/cassettes - somewhat	1	1			1						1					4
9. videotapes/cassettes - not	23	21	9	22	24	22	4	17	10	11	5	12	20	17	11	228
9. filmstrips - very																0
9. filmstrips - somewhat														1		1
9. filmstrips - not	24	24	9	22	25	23	4	18	10	11	7	12	22	17	11	239
9. audiotapes/cassettes - very	2					1				1		3				7
9. audiotapes/cassettes - somewhat										1						1
9. audiotapes/cassettes - not	22	24	9	22	25	22	4	18	10	9	7	9	22	18	11	232
9. kits - very		1		1	2			1					1	1		7
9. kits - somewhat		1			2	2		1			1					7
9. kits - not	24	22	9	21	21	21	4	16	10	11	6	12	21	17	11	226
9. other teachers in your school - very	6	12	3	4	5	9	1	6	3	6	5		19	3		82
9. other teachers in your school - somewhat	13	2	2	11	14	13	1	4	3	2		2	2	8	3	80
9. other teachers in your school - not	5	10	4	7	6	1	2	8	4	3	2	10	1	7	8	78
9. T/M - very	6	10	2	1	1	2		4	5	5	3		2	2		43
9. T/M - somewhat	11	1		9	9	5	1	5	1	4		4	1		2	53
9. T/M - not	7	13	7	12	15	16	3	9	4	2	4	8	19	16	9	144
10.1 Old correspondence material																
10.1.1 Reading level - too easy	1				5	1				1		2				10
10.1.1 Reading level - about right	14	3	4	11	20	11	4	1				9		8	6	91
10.1.1 Reading level - too difficult	2	2		2		1						2		1		10
10.1.2 Organization - easy to use	14	1	4	10	23	12	3					12		9	6	94
10.1.2 Organization - difficult to use	2	4		3	2	1	1	1		1						15
10.1.2a Why easy - well organized	11		1	9	6							3		2	2	34
10.1.2a Why easy - headings printed in bold				1	3		1					2			1	8
10.1.2a Why easy - knew most of the information			1		3											4
10.1.2a Why easy - direction were in the lesson					4											4

Student Summary - Schools Continuing from Phase 1

Question	Altario	Carbon	Cessfor	Cluny	Della	Endiang	Hussar	Lomond	Manybe	Morrin	Rosema	Tilley	Youngst	TOTAL
10.1.2a Why easy - key words outlined												1		1
10.1.2a Why easy - used a lot of examples		1												1
10.1.2a Why easy - given hints where to find										1				1
10.1.2a Why easy - definitions of words														0
10.1.2a Why easy - illustrations				1										1
10.1.2a Why easy - mostly multiple choice														0
10.1.2a Why easy - notes contain all of the answers	6	2			1					1				10
10.1.2a Why easy - understood it														0
10.1.2a Why easy - broken down into sections		1												1
10.1.2a Why easy - better notes than get in classes														0
10.1.2a Why easy - explained the concepts well		1												1
10.1.2a Why easy - Diagrams											1			1
10.1.2a Why easy - Sister knew the course											1			1
10.1.2a Why easy - Italics for definitions												1		1
10.1.2b Why difficult - Outdated		1									1			2
10.1.2b Why difficult - Material and text not same														0
10.1.2b Why difficult - Examples not in detail		1												1
10.1.2b Why difficult - Not explained		1												1
10.1.2b Why difficult - Hard to understand														0
10.1.2b Why difficult - Too much mat. for one exam						1								1
10.1.2b Why difficult - Phys 30 too many textbooks														0
10.1.2b Why difficult - Overall course too complex		1												1
10.1.2b Why difficult - Material not in the textbook					1					1				2
10.1.2b Why difficult - Answers not easily found	1													1
10.1.2b Why difficult - Vocabulary not understood														0
10.1.2b Why difficult - Use reference to find answer														0
10.1.2b Why difficult - Wasn't clear where mat. was													1	1
10.1.2b Why difficult - Questions are badly worded										1				1
10.1.2b Why difficult - The objectives were unclear				1										1
10.1.2b Why difficult - Diagrams are difficult to use														0
10.1.2b Why difficult - A lot of reading														0
10.1.2b Why difficult - lessons & assign. didn't relate											1	1		2
10.1.2b Why difficult - Fr. tapes fast & diff. to underst.												1		1
10.1.2b Why difficult - Schedule was diff. to follow												1		1
10.2 New Correspondence Materials														
10.2.1 Reading level - too easy				1				1		1	1	1		5
10.2.1 Reading level - about right	5		6	10			19	13	12	1	12	18		96
10.2.1 Reading level - too difficult			1					1	13		4	1		20
10.2.2 Organization - easy to use	5		3	10			15	11	1	2	14	16		77
10.2.2 Organization - difficult to use			4				4	4			3	5		20
10.2.2.1a Why organization easy?														0
10.2.2.1a Why easy - organized well/easy to underst.	5			1						1	7	4		18
10.2.2.1a Why easy - give examples/ clear examples				2			2	2	4		1			11
10.2.2.1a Why easy - lots of review questions														0
10.2.2.1a Why easy - easy to follow the instructions				3			3					2		8
10.2.2.1a Why easy - good use of the diagrams			1	1					2		2	1		7
10.2.2.1a Why easy - all of the information in the pkg				2				4						6
10.2.2.1a Why easy - the sections have good summary				1							1			2
10.2.2.1a Why easy - the headings make it easy to read			1				1					1		3
10.2.2.1a Why easy - questions follow content							5		4		6			15
10.2.2.1a Why easy - Sequential - step by step												4		4
10.2.2.1a Why easy - Good explanations			1						7					8
10.2.2.1a Why easy - Text set apart									2					2
10.2.2.1a Why easy - Study aides are included														0
10.2.2.1a Why easy - Good introduction							2				1			3
10.2.2.1a Why easy - Answers are easy to find			2				2					4		8
10.2.2.1a Why easy - Lessons are well seperated							1							1
10.2.2.1a Why easy - The text is highlighted											3			3

Question	Acme	Bassand	Bow Isl	Castor	Coalhu	Consor	Corona	Duches	Foremo	Grassy	Irvine	Noblefo	Standar	Stirling	Warner	TOTAL
10.1.2a Why easy - key words outlined												1				1
10.1.2a Why easy - used a lot of examples					1	2								1		4
10.1.2a Why easy - given hints where to find																0
10.1.2a Why easy - definitions of words														1		1
10.1.2a Why easy - illustrations														1		1
10.1.2a Why easy - mostly multiple choice					1											1
10.1.2a Why easy - notes contain all of the answers	3		1		7	6						2				19
10.1.2a Why easy - understood it	1					1	2					1			2	7
10.1.2a Why easy - broken down into sections																0
10.1.2a Why easy - better notes than get in classes						1										1
10.1.2a Why easy - explained the concepts well						1								1	1	3
10.1.2a Why easy - Diagrams																0
10.1.2a Why easy - Sister knew the course																0
10.1.2a Why easy - Italics for definitions																0
10.1.2b Why difficult - Outdated																0
10.1.2b Why difficult - Material and text not same																0
10.1.2b Why difficult - Examples not in detail																0
10.1.2b Why difficult - Not explained								1		1						2
10.1.2b Why difficult - Hard to understand	1															1
10.1.2b Why difficult - Too much mat. for one exam					1											1
10.1.2b Why difficult - Phys 30 too many textbooks					2											2
10.1.2b Why difficult - Overall course too complex																0
10.1.2b Why difficult - Material not in the textbook						1										1
10.1.2b Why difficult - Answers not easily found		1														1
10.1.2b Why difficult - Vocabulary not understood							1									1
10.1.2b Why difficult - Use reference to find answer				1												1
10.1.2b Why difficult - Wasn't clear where mat. was				2												2
10.1.2b Why difficult - Questions are badly worded																0
10.1.2b Why difficult - The objectives were unclear																0
10.1.2b Why difficult - Diagrams are difficult to use										1						1
10.1.2b Why difficult - A lot of reading		1														1
10.1.2b Why difficult - lessons & assign. didn't relate																0
10.1.2b Why difficult - Fr. tapes fast & diff. to underst.																0
10.1.2b Why difficult - Schedule was diff. to follow																0
10.2 New Correspondence Materials																
10.2.1 Reading level - too easy		1						1		1	1		2			6
10.2.1 Reading level - about right		22	9		1	1		13		7	5		19			77
10.2.1 Reading level - too difficult		1						3		3	1		1			9
10.2.2 Organization - easy to use		20	7		1	1		13		8	5		19			74
10.2.2 Organization - difficult to use		4	2					5		3	2		3			19
10.2.2.1a Why organization easy?																0
10.2.2.1a Why easy - organized well/easy to underst.			4			1				2	2		7			16
10.2.2.1a Why easy - give examples/ clear examples		2	2		1			3								8
10.2.2.1a Why easy - lots of review questions					1											1
10.2.2.1a Why easy - easy to follow the instructions								2								2
10.2.2.1a Why easy - good use of the diagrams										1						1
10.2.2.1a Why easy - all of the information in the pkg																0
10.2.2.1a Why easy - the sections have good summary			2							1	1		1			5
10.2.2.1a Why easy - the headings make it easy to read		2						1		1	1		3			8
10.2.2.1a Why easy - questions follow content			2							2			4			8
10.2.2.1a Why easy - Sequential - step by step		3						2		1						6
10.2.2.1a Why easy - Good explanations		2											7			9
10.2.2.1a Why easy - Text set apart																0
10.2.2.1a Why easy - Study aides are included		1														1
10.2.2.1a Why easy - Good introduction		1														1
10.2.2.1a Why easy - Answers are easy to find		7														7
10.2.2.1a Why easy - Lessons are well seperated		1						1								2
10.2.2.1a Why easy - The text is highlighted		1						1					1			3

Question	Altario	Carbon	Cessfor	Cluny	Delia	Endiang	Hussar	Lomond	Manybe	Morrin	Rosem	Tilley	Youngst		TOTAL
10.2.2.1a Why easy - Italics helped			1									1			2
10.2.2.1a Why easy - Student familiar with the content											1				1
10.2.2.1a Why easy - Updated course											1				1
10.2.2.1a Why easy - The main ideas are underlined															0
10.2.2.1a Why easy - The important info. in a box							1	1							2
10.2.2.1a Why easy - Examples given prior to the quest.															0
10.2.2.1a Why easy - Page references - easy to find								1							1
10.2.2.1a Why easy - Self-correcting excersises												1			1
10.2.2.1b Why organizations difficult to use:															0
10.2.2.1b Why diff. - too much data in the textbook															0
10.2.2.1b Why diff. - not familiar with the content			1												1
10.2.2.1b Don't understand how to meet criteria															0
10.2.2.1b Why diff. - sequence of concepts not logical			1								2				3
10.2.2.1b Why diff. - content doesn't relate to assign.								1	1						2
10.2.2.1b Why diff. - Difficult to find the answers							2					3			5
10.2.2.1b Why diff. - Example are not helpful											1				1
10.2.2.1b Why diff. - Course outdated											1				1
10.2.2.1b Why diff. - Lessons and text don't correspond			1				2	1							4
10.2.2.1b Why diff. - Tapes are diff. to follow			1				1								2
10.2.2.1b Why diff. - Not enough practice in French 10			1												1
10.2.2.1b Why diff. - Not enough examples															0
10.2.2.1b Why diff. - Explanations were insufficient															0
10.2.2.1b Why diff. - Vocabulary is too difficult								1							1
10.2.2.1b Why diff. - Confusing setup															0
10.2.2.1b Why diff. - It's diff. the way the ? are worded															0
10.2.2.1b Why diff. - Difficult to read								2							2
10.2.2.1b Why diff. - The diagrams are not prop. label							1								1
10.2.2.1b Why diff. - Lack of sequence of ideas												1			1
10.2.2.1b Why diff. - No references to prereq. knowl.												1			1
10.2.2.1b Why diff. - No depth to some subjects												1			1
10.2.2.1b Why diff. - Questions are worded poorly												1			1
10.3 FAX															
10.3.1 Turnaround fast enough - Yes	17	25	7	9	10	9	18	13	16	17	17	19	5		182
10.3.1 Turnaround fast enough - No		4		1	2		1	1		3		1			13
10.3.2 Feedback useful - Yes	15	23	6	8	11	9	17	10	14	19	17	18	5		172
10.3.2 Feedback useful - No	2	6	1	1	1		2	3	2	1					19
10.3.2.1 Read feedback - Useful - Yes	14	22	6	6	11	9	17	13	14	16	17	19	4		168
10.3.2.1 Read feedback - Useful - No	1	1					2	1		4		1	1		11
10.3.2.1 Read feedback - Not Useful - Yes	2	3		1	1				1	1		19			28
10.3.2.1 Read feedback - Not Useful - No		2	1						1			1			5
10.3.3 Quality of FAXed materials - OK	17	22	1	4	11	8	17	7	14	19	17	12	4		153
10.3.3 Quality of FAXed materials - not OK		6	6	5	1	1	2	9	2	2		8			42
10.4 Computer															
10.4.1 Used EMAIL - Yes			1				3	2			1	1			8
10.4.1 Used EMAIL - No			6	10			16	12	16		17	19			96
10.4.1.1 EMAIL useful - Yes			1				2					1			4
10.4.1.1 EMAIL useful - No							1	2	16		1				20
10.4.2 Used electronic BB - Yes							1	1			2	1			5
10.4.2 Used electronic BB - No			7	10			18	13	16		15	19			98
10.4.2.1 BB useful - Yes												1			1
10.4.2.1 BB useful - No							1	1	16		2				20
10.5 Teleconferencing															
10.5.1 Participated - Yes	4	9	3	4	3	8	3	5	10	3	5	7			64
10.5.1 Participated - No	13	19	4	6	9	1	16	9	6	18	12	13			126
10.5.1.1 Which courses?															0
10.5.1.1 Accounting 10										1		1			2

Question	Acme	Bassano	Bow Isl	Castor	Coalhur	Consort	Coronat	Duchess	Foremo	Grassy	Irvine	Nobleto	Standar	Stirling	Warner	TOTAL
10.2.2.1a Why easy - Italics helped		1	1													2
10.2.2.1a Why easy - Student familiar with the content																0
10.2.2.1a Why easy - Updated course																0
10.2.2.1a Why easy - The main ideas are underlined			1					1								2
10.2.2.1a Why easy - The important info. in a box			1													1
10.2.2.1a Why easy - Examples given prior to the quest.													3			3
10.2.2.1a Why easy - Page references - easy to find																0
10.2.2.1a Why easy - Self-correcting excersises																0
10.2.2.1b Why organizations difficult to use:											2					2
10.2.2.1b Why diff. - too much data in the textbook										1						1
10.2.2.1b Why diff. - not familiar with the content								1		1						2
10.2.2.1b Don't understand how to meet criteria		1								1						2
10.2.2.1b Why diff. - sequence of concepts not logical			1													1
10.2.2.1b Why diff. - content doesn't relate to assign.		2											1			3
10.2.2.1b Why diff. - Difficult to find the answers		1														1
10.2.2.1b Why diff. - Example are not helpful																0
10.2.2.1b Why diff. - Course outdated			1													1
10.2.2.1b Why diff. - Lessons and text don't correspond																0
10.2.2.1b Why diff. - Tapes are diff. to follow																0
10.2.2.1b Why diff. - Not enough practice in French 10								1								1
10.2.2.1b Why diff. - Not enough examples								2								2
10.2.2.1b Why diff. - Explanations were insufficient								1								1
10.2.2.1b Why diff. - Vocabulary is too difficult								1								1
10.2.2.1b Why diff. - Confusing setup													2			2
10.2.2.1b Why diff. - It's diff. the way the ? are worded																0
10.2.2.1b Why diff. - Difficult to read																0
10.2.2.1b Why diff. - The diagrams are not prop. label																0
10.2.2.1b Why diff. - Lack of sequence of ideas																0
10.2.2.1b Why diff. - No references to prereq. knowl.																0
10.2.2.1b Why diff. - No depth to some subjects																0
10.2.2.1b Why diff. - Questions are worded poorly																
10.3 FAX																
10.3.1 Turnaround fast enough - Yes	23	21	8	20	24	21	4	15	7	8	5	11	16	15	9	207
10.3.1 Turnaround fast enough - No	1	3	1	2	1	3		3	2	2	2	1	4	3	2	30
10.3.2 Feedback useful - Yes	21	23	7	20	23	19	4	14	8	11	3	12	18	17	7	207
10.3.2 Feedback useful - No	3	1	2	2	2	4		4	2		4		4	1	4	33
10.3.2.1 Read feedback - Useful - Yes	21	21	5	20	22	19	4	13	8	11	3	12	17	17	7	200
10.3.2.1 Read feedback - Useful - No		2	2		2			1					1			8
10.3.2.1 Read feedback - Not Useful - Yes		1	1	2	1	2		3	2		4		2	1		19
10.3.2.1 Read feedback - Not Useful - No	3		1			2		1							1	8
10.3.3 Quality of FAXed materials - OK	15	19	3	22	9	23	4	13	6	8	7	10	16	16	9	180
10.3.3 Quality of FAXed materials - not OK	9	5	6		2			5	3	2		2	4	2	2	42
10.4 Computer																
10.4.1 Used EMAIL - Yes	4	2						1	3							10
10.4.1 Used EMAIL - No	20	22	9					17	7	11	7		22			115
10.4.1.1 EMAIL useful - Yes	1							1	2							4
10.4.1.1 EMAIL useful - No	3	2							1							6
10.4.2 Used electronic BB - Yes		1														1
10.4.2 Used electronic BB - No			9					18	10	11	7		22			77
10.4.2.1 BB useful - Yes																0
10.4.2.1 BB useful - No		1														1
10.5 Teleconferencing																
10.5.1 Participated - Yes	6			1	1	2			1	1		3	1			16
10.5.1 Participated - No	18	24	9	21	24	21		18	7	10	7	9	21			189
10.5.1.1 Which courses?																0
10.5.1.1 Accounting 10									1							1

Student Summary - Schools Continuing from Phase 1

Question	Altario	Carbon	Cessfor	Cluny	Delia	Endlang	Hussar	Lomond	Manyb	Morrin	Roseme	Tilley	Youngst		TOTAL
10.5.1.1 Accounting 20		2		1											3
10.5.1.1 Chemistry 20	1														1
10.5.1.1 Chemistry 30						1									1
10.5.1.1 French 10	1	2	3	1		1		5	6		3	6			28
10.5.1.1 French 20	1	2				1	3								7
10.5.1.1 General Psychology											1				1
10.5.1.1 Industrial Ed					1										1
10.5.1.1 Math 23															0
10.5.1.1 Math 30		1													1
10.5.1.1 Math 31					1										1
10.5.1.1 Math 33															0
10.5.1.1 Mechanics 12									4						4
10.5.1.1 Personal Psychology															0
10.5.1.1 Shorthand											1				1
10.5.1.1 Social 20				1											1
10.5.1.1 Sociology 20				1											1
10.5.1.1 Science 11										1					1
10.5.1.2 Comfortable talking - Yes	2	9	2	2	3	8	3	4	10	3	3	8			53
10.5.1.2 Comfortable talking - No	2		1	2		2		1			2	1			11
10.5.1.3 If not comfortable,why?															0
10.5.1.3 Felt alone	1														1
10.5.1.3 Rather talk to a person	1					1									2
10.5.1.3 Intimidated						1									1
10.5.1.3 People kept interupting															0
10.5.1.3 Need a face to place with the voice											1				1
10.5.1.3 Liked the telephone better				1											1
10.5.1.3 Got used to it															0
10.5.1.3 Felt that the other students knew more French			1												1
10.5.1.3 Didn't like talking in a group												1			1
10.5.1.4 Understand what was said - Yes	4	9	3	4	3	8	3	3	10	3	5	5			60
10.5.1.4 Understand what was said - No								2				2			4
10.6 Computer Managed Learning															
10.6.1 Used a CML system - Yes															0
10.6.2 Used a CML system - No			7	9			19	14	16		17	20			102
10.6.2 Which courses?															0
10.6.3 Things liked about CML															0
10.6.4 Things disliked about CML															0
10.7 Tutor/Markers															
10.7.1 Useful feedback - Yes	9	21	6	6	7	9	16	11	12	13	14	16	5		145
10.7.1 Useful feedback - No		4	1	3			2		1	1		1			13
10.7.1 Useful feedback - Sometimes	8	4			5		1	2	3	6	3	3			35
10.7.1.1 Examples-															0
10.7.1.1 Correct work	13	8			7	5	8			3	5	6	3		58
10.7.1.1 Comments of encouragement	3	3	1		3		2	1	1		3	3			20
10.7.1.1 Suggest different methods of doing things				1				7	2		2	2			14
10.7.1.1 Suggests extra reading															0
10.7.1.1 Explains wrong answers		15	5	4		1	9		5	8	9	11			67
10.7.1.1 Suggests to phone if difficulties							1								1
10.7.1.1 Too hard for the T/M to explain in writing															0
10.7.1.1 Gives information on questions												1			1
10.7.1.1 Didn't get the unit tests back															0
10.7.1.1 Hints for the tests		2		1					2		2				7
10.7.1.1 Refers to the textbook		5	4	1			8			2	3	8			31
10.7.1.1 Refers to other references available									2						2
10.7.1.1 Answers questions not in the course													1		1
10.7.1.1 Suggests a review of the lesson w. low marks													1		1
10.7.1.1 Problems not answered	2	3										1			6

Question	Acme	Bassand	Bow Isl	Castor	Coalhu	Consort	Coronat	Duchess	Foremo	Grassy	Irvine	Nobleto	Standar	Stirling	Warner	TOTAL
10.5.1.1 Accounting 20									1							1
10.5.1.1 Chemistry 20																0
10.5.1.1 Chemistry 30																0
10.5.1.1 French 10	2											1				3
10.5.1.1 French 20	1					1				1		2				5
10.5.1.1 General Psychology	1			1	1											3
10.5.1.1 Industrial Ed																0
10.5.1.1 Math 23	1															1
10.5.1.1 Math 30																0
10.5.1.1 Math 31																0
10.5.1.1 Math 33	1															1
10.5.1.1 Mechanics 12																0
10.5.1.1 Personal Psychology	1			1												2
10.5.1.1 Shorthand																0
10.5.1.1 Social 20													1			1
10.5.1.1 Sociology 20																0
10.5.1.1 Science 11																0
10.5.1.2 Comfortable talking - Yes	5			1		2			1	1		1	1			12
10.5.1.2 Comfortable talking - No	1				1							2				4
10.5.1.3 If not comfortable,why?																
10.5.1.3 Felt alone																0
10.5.1.3 Rather talk to a person												1				1
10.5.1.3 Intimidated																0
10.5.1.3 People kept interupting					1											1
10.5.1.3 Need a face to place with the voice	1															1
10.5.1.3 Liked the telephone better																0
10.5.1.3 Got used to it												2				2
10.5.1.3 Felt that the other students knew more French																0
10.5.1.3 Didn't like talking in a group																0
10.5.1.4 Understand what was said - Yes	6			1	1	2			1	1		2	1			15
10.5.1.4 Understand what was said - No												1				1
10.6 Computer Managed Learning																
10.6.1 Used a CML system - Yes																0
10.6.2 Used a CML system - No		24	9					18	10	11	7		22			101
10.6.2 Which courses?																0
10.6.3 Things liked about CML																0
10.6.4 Things disliked about CML																0
10.7 Tutor/Markers																
10.7.1 Useful feedback - Yes	20	18	4	18	22	19	4	14	8	10	3	10	15	16	6	185
10.7.1 Useful feedback - No	3	2			1	3		2	2	1	2	2	1	1	2	22
10.7.1 Useful feedback - Sometimes	2	4	5	4	2	2		2	2		2		6	1	3	35
10.7.1.1 Examples-																
10.7.1.1 Correct work		1	1	12	7	12		4	1	3	3	4		8		56
10.7.1.1 Comments of encouragement	6			7	4	4	2		1	1		1	4			30
10.7.1.1 Suggest different methods of doing things	2	4		1			2	1	2	1		2	1			16
10.7.1.1 Suggests extra reading		1			1							2		1		5
10.7.1.1 Explains wrong answers	7	7	6		5	5		6	1	3	2	1	6		6	55
10.7.1.1 Suggests to phone if difficulties												1				1
10.7.1.1 Too hard for the T/M to explain in writing						1										1
10.7.1.1 Gives information on questions					2									1		3
10.7.1.1 Didn't get the unit tests back						1										1
10.7.1.1 Hints for the tests				1	1	2				1			4			9
10.7.1.1 Refers to the textbook	1	6		2	6			2					5			22
10.7.1.1 Refers to other references available				1					1							2
10.7.1.1 Answers questions not in the course																0
10.7.1.1 Suggests a review of the lesson w. low marks	1															1
10.7.1.1 Problems not answered									1						2	3

Student Summary - Schools Continuing from Phase 1

Question	Altario	Carbon	Cession	Cluny	Delia	Endiang	Hussar	Lomond	Manybe	Morrin	Rosems	Tilley	Youngst	TOTAL
10.7.1.1 Advice		4			1									5
10.7.1.1 Outlines for essays					1									1
10.7.1.1 Given extra work														0
10.7.1.1 Let know when doing something right					1									1
10.7.1.1 Accessable						1								1
10.7.1.1 Hints for studying						3	2						1	6
10.7.1.1 Commented in French						1								1
10.7.1.1 Feedback while teleconferencing						1								1
10.7.1.1 Sends own instruction with the lessons														0
10.7.1.1 Just put down answers and no solutions										4				4
10.7.1.1 Nothing		1												1
10.7.1.1 Had to FAX back more info. in Physics														0
10.7.1.1 Phoned to explain the problems														0
10.7.1.1 Help sheets for the next lessons														0
10.7.1.1 Tells when the tests are coming up														0
10.7.1.1 Hard to read the T/M's writing														0
10.7.1.1 Not enough room to write the answer										1				1
10.7.1.1 Review sheets														0
10.7.1.1 Missing pages in feedback										1				1
10.7.1.1 TM asked for more detail				1										1
10.7.1.1 Provision of examples				1							1			2
10.7.1.1 Asked for clarification on assign. and got it														0
10.7.1.1 Inflexibility in terms of acceptable answers														0
10.7.1.1 No hints on what to study for the tests														0
10.7.1.1 Positive comments but gave no guidance			1											1
10.7.1.1 Indicated that student was behind							1				1			2
10.7.1.1 Phoned each one to one									1					1
10.7.1.1 Indicated on how words were to be pronounced									1		1			2
10.7.1.1 Didn't respond to a student's note for help														0
10.7.1.1 Explained the setup											1			1
10.7.1.1 Provided reference phone numbers for Agric.											1			1
10.7.1.1 Solution sheet provided												1		1
10.7.1.1 Pointed out missed content												1		1
10.7.1.1 Justified the marks on the assignments														0
10.7.1.1 Only marked with an "X"														0
10.7.1.1 Suggested the student be neater on assignment														0
10.7.1.1 Frequent feedback on assignments								3						3
10.7.1.1 Points out mistakes on the tests								5						5
10.7.1.1 Gave suggestions for dealing with M.C.							1							1
10.7.2. Contacted T/M - Yes	8	16	4	5	8	4	10	11	15	14	15	10	2	120
10.7.2 Contacted T/M - No	12	12	3	4	4	5	9	3	1	6	2	10	3	74
10.7.2.1 Used - Phone	8	16	4	4	8	4	10	10	15	14	14	8	2	115
10.7.2.1 Used - FAX	1	8	1	1	5	1	5	3	7	3	9	8	2	50
10.7.2.1 Used - EMAIL			1				3				2	1		7
10.7.2.1 Used - BB														0
10.7.2.2 Got help - Yes	4	14	4	5	7	4	10	11	14	13	14	7	2	109
10.7.2.2 Got help - No	2	2			1				2	1			1	9
10.7.2.3 Looking for - Help with course material	5	16	4	5	8	4	10	11	16	13	15	10	2	119
10.7.2.3 Looking for - Advice on other matters					1									1
11. Use of time if courses weren't available?														
11. Spare	8	9	6	5	7	1	10	4	5	13	9	12		89
11. Another course offered at the school	7	6	1	4	3	8	5	1	7	8	7	5	1	63
11. Correspondence course		4		1	2		2	3				1	4	17
11. Nothing														0
11. Not in school	2	2							2					6
11. Other homework	1	1												2
11.Work experience		2												2
11. Job					1			2						3

dent) - Sc ginni _ ise 2

Question	Acme	Bassand	Bow Isl	Castor	Coalhu	Consort	Coronat	Duchess	Foremo	Grassy	Irvine	Noblefo	Standar	Stirling	Warner	TOTAL
10.7.1.1 Advice																0
10.7.1.1 Outlines for essays																0
10.7.1.1 Given extra work														4		4
10.7.1.1 Let know when doing something right																0
10.7.1.1 Accessable																0
10.7.1.1 Hints for studying								3					2	3	1	9
10.7.1.1 Commented in French																0
10.7.1.1 Feedback while teleconferencing																0
10.7.1.1 Sends own instruction with the lessons																0
10.7.1.1 Just put down answers and no solutions	2												1			3
10.7.1.1 Nothing	1													1		2
10.7.1.1 Had to FAX back more info. in Physics					1											1
10.7.1.1 Phoned to explain the problems	1				1											2
10.7.1.1 Help sheets for the next lessons					1											1
10.7.1.1 Tells when the tests are coming up					1											1
10.7.1.1 Hard to read the T/M's writing														1		1
10.7.1.1 Not enough room to write the answer																0
10.7.1.1 Review sheets	2												4			6
10.7.1.1 Missing pages in feedback																0
10.7.1.1 TM asked for more detail		6														6
10.7.1.1 Provision of examples																0
10.7.1.1 Asked for clarification on assign. and got it									1							1
10.7.1.1 Inflexibility in terms of acceptable answers											1					1
10.7.1.1 No hints on what to study for the tests									1							1
10.7.1.1 Positive comments but gave no guidance											1					1
10.7.1.1 Indicated that student was behind			1							2			1			4
10.7.1.1 Phoned each one to one																0
10.7.1.1 Indicated on how words were to be pronounced																0
10.7.1.1 Didn't respond to a student's note for help		1														1
10.7.1.1 Explained the setup																0
10.7.1.1 Provided reference phone numbers for Agric.																0
10.7.1.1 Solution sheet provided								1								1
10.7.1.1 Pointed out missed content			2													2
10.7.1.1 Justified the marks on the assignments			1													1
10.7.1.1 Only marked with an "X"			1													1
10.7.1.1 Suggested the student be neater on assignment													1			1
10.7.1.1 Frequent feedback on assignments																0
10.7.1.1 Points out mistakes on the tests																0
10.7.1.1 Gave suggestions for dealing with M.C.																0
10.7.2. Contacted T/M - Yes	16	14	3	10	10	5	1	12	9	6	3	7	3		1	100
10.7.2 Contacted T/M - No	8	10	6	12	7	18	3	6	1	5	4		19	18	10	127
10.7.2.1 Used - Phone	16	14	1	2	5	3		8	7	5	2	7	2		1	73
10.7.2.1 Used - FAX	1	3	2	9	10	4	1	5	4	4	1	1				45
10.7.2.1 Used - EMAIL	1								2							3
10.7.2.1 Used - BB																0
10.7.2.2 Got help - Yes	16	8	2	8	10	5		9	8	6	3	7	2		1	85
10.7.2.2 Got help - No		2	1	2				2	1							8
10.7.2.3 Looking for - Help with course material	16	9	3	8	10	5		9	8	6	3	7	2		1	87
10.7.2.3 Looking for - Advice on other matters	1															1
11. Use of time if courses weren't available?																
11. Spare	12	7	5	13	16	9	2	12	4	2	2	9	10	8	5	116
11. Another course offered at the school	9	15	3	6	5	14	1	5	1	7	5	2	9	7	3	92
11. Correspondence course	2			3		2			2			1			2	12
11. Nothing															1	1
11. Not in school	2	1						1						1		5
11. Other homework					1							1		1		3
11.Work experience										1				1		2
11. Job													1	1		2

Question	Altario	Carbon	Cessfor	Cluny	Delia	Endiang	Hussar	Lomond	Manybe	Morrin	Rosema	Tilley	Youngst	TOTAL
11. Another course in summer school														0
11. Go to a different school where course offered		2					1	6			1	1		11
11. Take Matric. courses offered in school		1												1
11. Don't know		1							2					3
11. Other school activities														0
11. Special project														0
11. Stay out of the course until next year														0
11. Come back another year												1		1
12. Difficult to get assignments done on time - Yes	4	15	3	4	6	5	9	5	6	7	9	3	1	77
12. Difficult to get assignment done on time - No	13	15	4	6	7	4	10	9	7	14	8	17	4	118
12.1 If yes, reason...														
12.1 Should make up own schedule														0
12.1 Other activities interfere	1						1				2			4
12.1 Hard to get work done in the DLP room		1												1
12.1 Don't get around to it		3									2			5
12.1 Supervisor has a hard time with all course mat.														0
12.1 The material is hard/difficult	2	2			1				1	3				9
12.1 Too much reading		1				1								2
12.1 The books and lesson were late											2	1		3
12.1 Missed school because of the weather														0
12.1 Have to stop when the bell rings ie. Typing														0
12.1 Outside employment														0
12.1 Information not in the textbooks														0
12.1 Too much other homework		1	1								1			3
12.1 The lessons were too long	1	6	1	2	3		1	4	1	1	1	2	1	24
12.1 No teacher available for help		1			1	1		3			1		1	8
12.1 Nobody reminds you to get it done														0
12.1 Leave it to the last minute						2								2
12.1 Taking too many courses	1													1
12.1 Not enough information	2													2
12.1 DLP not as flexible as a teacher can be					1									1
12.1 Doesn't allow for sickness		2												2
12.1 All assignments due at the same time		2												2
12.1 Tired of learning languages by correspondence		1												1
12.1 Each lesson is not the same length		1												1
12.1 Mid-term not sent can't go on without it														0
12.1 Field trip														0
12.1 Writing essays														0
12.1 Don't like working at home on it														0
12.1 Too much paperwork				1										1
12.1 Not enough examples										1				1
12.1 Outside school assignments ie. go to a bank										1				1
12.1 Tests and assigments are too close together														0
12.1 Hard to balance time				1	1			1	1	3				7
12.1 Too many distractions in another room														0
12.1 Not adequate equipment					1			1						2
12.1 Too much material in a lesson						2	2							4
12.1 Started the course late				1					1					2
12.1 Not enough time given									1					1
12.1 Lack of clear instructions									6					6
12.1 Trouble finding information														0
12.1 Material is out of date											1			1
12.1 The assignments are boring											1			1
12.1 Project is time consuming			1											1
12.1 Went on a holiday and got behind			1											1
12.1 Review questions are time consuming			1											1
12.1 Got behind and had to catch up														0
12.1 Motivation problem							3							3

Question	Acme	Bassano	Bow Isl	Castor	Coalhu	Consort	Coronat	Duchess	Foremo	Grassy	Irvine	Noblefo	Standar	Stirling	Warner		TOTAL
11. Another course in summer school					3												3
11. Go to a different school where course offered																	0
11. Take Matric. courses offered in school																	0
11. Don't know									3	1							4
11. Other school activities							1										1
11. Special project		1															1
11. Stay out of the course until next year								1					1				2
11. Come back another year			1										1				2
12. Difficult to get assignments done on time - Yes	10	14	4	10	15	17	3	10	2	8	1	4	6	13	5		122
12. Difficult to get assignment done on time - No	14	10	5	14	10	7	1	8	8	3	6	8	16	5	6		121
12.1 If yes, reason...																	
12.1 Should make up own schedule														1			1
12.1 Other activities interfere			2							4		1	2	4			13
12.1 Hard to get work done in the DLP room												1					1
12.1 Don't get around to it				2	4		1	3				2	1	2			15
12.1 Supervisor has a hard time with all course mat.												1					1
12.1 The material is hard/difficult		3		1	1	3		3	1	2			1	1			16
12.1 Too much reading				1		1				2			2				6
12.1 The books and lesson were late						2							1				3
12.1 Missed school because of the weather						1											1
12.1 Have to stop when the bell rings ie. Typing						1											1
12.1 Outside employment				1													1
12.1 Information not in the textbooks				1													1
12.1 Too much other homework	1		1	1	3			2							1		9
12.1 The lessons were too long	2	4		1	1	10		4	1	3			2	5			33
12.1 No teacher available for help		2				1											3
12.1 Nobody reminds you to get it done							1										1
12.1 Leave it to the last minute	1						1										2
12.1 Taking too many courses																	0
12.1 Not enough information																	0
12.1 DLP not as flexible as a teacher can be																	0
12.1 Doesn't allow for sickness					1												1
12.1 All assignments due at the same time																	0
12.1 Tired of learning languages by correspondence																	0
12.1 Each lesson is not the same length					2												2
12.1 Mid-term not sent can't go on without it					1												1
12.1 Field trip					2					1							3
12.1 Writing essays	1																1
12.1 Don't like working at home on it	2																2
12.1 Too much paperwork															3		3
12.1 Not enough examples																	0
12.1 Outside school assignments ie. go to a bank																	0
12.1 Tests and assigments are too close together	1																1
12.1 Hard to balance time	2	2			3						1				1		9
12.1 Too many distractions in another room					1												1
12.1 Not adequate equipment																	0
12.1 Too much material in a lesson																	0
12.1 Started the course late		2															2
12.1 Not enough time given																	0
12.1 Lack of clear instructions																	0
12.1 Trouble finding information		1															1
12.1 Material is out of date																	0
12.1 The assignments are boring			1														1
12.1 Project is time consuming																	0
12.1 Went on a holiday and got behind																	0
12.1 Review questions are time consuming																	0
12.1 Got behind and had to catch up			1														1
12.1 Motivation problem																	0

Question	Altario	Carbon	Cessford	Cluny	Delia	Endiang	Hussar	Lomond	Manybe	Morrin	Rosema	Tilley	Youngst	TOTAL
12.1 Too much memorization							1							1
13. Matter there was no local teacher - Yes	8	18	4	2	2	1	4	10	7	5	5	5	1	72
13. Matter there was no local teacher - No	9	10	3	8	10	8	15	4	8	16	12	15	4	122
14. Needed materials not available locally - Yes	4	8	4	2	5	1	1	8	8	8	7	4	4	80
14. Needed materials not available locally - No	13	20	3	8	7	8	18	10	8	15	10	16	1	137
14.1 If yes, What materials did you need?														0
14.1 Different types of leaves														0
14.1 Material for lesson														0
14.1 Textbook					1			1	1	1	2			6
14.1 Hoops/ yarn for weaving							1							1
14.1 Chemicals	2					1								3
14.1 Materials for essay assignments														0
14.1 Some reading for Psychology														0
14.1 Diagrams in the textbook														0
14.1 Concave mirrors/convex mirrors - Physics		1						1		1				3
14.1 Tuning fork - Physics		1						1						2
14.1 Art supplies		4							3					7
14.1 Biology lab material		1		1	1			1					1	5
14.1 Physics masses		1						1						2
14.1 French audiotapes		1												1
14.1 Drafting supplies ie pencils/t-square/d. board	1				2			1		3		1		8
14.1 Building construction supplies			1		1			1		1				4
14.1 Photo kit - Biology														0
14.1 Reference materials											1		3	4
14.1 French stories														0
14.1 Special pens														0
14.1 Experimental materials for Science		1							1					2
14.1 Art books				1										1
14.1 Films														0
14.1 Mechanics dictionary			1						1			1		3
14.1 Parts for Mechanics									1					1
14.1 French-English dictionary									1					1
14.1 More information in accounting														0
14.1 Dictionary of law terms														0
14.1 Fabric for sewing														0
14.1 Information charts											2			2
14.1 Magazine articles											2			2
14.1 Experiment materials											1			1
14.1 Typing forms											1			1
14.1 Better tapes for French			1											1
14.1 Vehicle needed for Industrial Ed			1											1
14.1 Slide and video for Biology 10														0
14.1 Perception kit												1		1
14.1 Electronics - diodes and resistors												1		1
14.2 Able to get them - Yes		8	2		4	1	1	3	5	4	8	3	3	40
14.2 Able to get them - No	4		2	2	1			1	3	2	1	1	1	18
14.2.1 How get them?														0
14.2.1 At school		3							1	1				5
14.2.1 Bought		1								1				2
14.2.1 Asked a teacher					2	1		1			2		2	8
14.2.1 At home														0
14.2.1 Eventually arrived														0
14.2.1 Photocopied the book										1				1
14.2.1 Ask around at school														0
14.2.1 Sent it in the mail										1				1
14.2.1 Hanna					1								1	2
14.2.1 Parents			1				1	1	1			2	2	8

Question	Acme	Bassano	Bow Isl	Castor	Coalhu	Consort	Corona	Duches	Foremo	Grassy	Irvine	Noblefo	Standar	Stirling	Warner	TOTAL
12.1 Too much memorization																0
13. Matter there was no local teacher - Yes	3	8	4	3	6	7	1	7	3	7	4	4	4	7	4	72
13. Matter there was no local teacher - No	21	15	5	19	19	17	3	11	7	4	3	7	18	11	7	167
																0
14. Needed materials not available locally - Yes	6	9	2	3	5	5	1	8	2	5	3	1	2	5	3	60
14. Needed materials not available locally - No	18	15	7	19	20	18	3	10	8		4	11	20	13	8	174
14.1 If yes, What materials did you need?																
14.1 Different types of leaves					1											1
14.1 Material for lesson	2				1											3
14.1 Textbook	3		1		1			2		2			1	1	3	14
14.1 Hoops/ yarn for weaving														2		2
14.1 Chemicals		*		1										1		2
14.1 Materials for essay assignments	1															1
14.1 Some reading for Psychology																0
14.1 Diagrams in the textbook					2											2
14.1 Concave mirrors/convex mirrors - Physics						1					2					3
14.1 Tuning fork - Physics						1					2					3
14.1 Art supplies		1														1
14.1 Biology lab material									*							0
14.1 Physics masses						1			*							1
14.1 French audiotapes																0
14.1 Drafting supplies ie pencils/t-square/d. board						3	1	1		4						9
14.1 Building construction supplies		2						1								3
14.1 Photo kit - Biology																0
14.1 Reference materials			1	1		2		1	1		1		1			6
14.1 French stories												1				1
14.1 Special pens				1						1						2
14.1 Experimental materials for Science		2														2
14.1 Art books																0
14.1 Films									1							1
14.1 Mechanics dictionary																0
14.1 Parts for Mechanics		1														1
14.1 French-English dictionary																0
14.1 More information in accounting		1														1
14.1 Dictionary of law terms		1														1
14.1 Fabric for sewing		1						1								2
14.1 Information charts																0
14.1 Magazine articles																0
14.1 Experiment materials																0
14.1 Typing forms																0
14.1 Better tapes for French																0
14.1 Vehicle needed for Industrial Ed								1								1
14.1 Slide and video for Biology 10																0
14.1 Perception kit																0
14.1 Electronics - diodes and resistors																
14.2 Able to get them - Yes	5	8	1	2	2	2	1	4	1	2	2		1	3		34
14.2 Able to get them - No	1	1	1	1	3	3		4	1	3	1	1	1	1	3	25
14.2.1 How get them?																
14.2.1 At school		1												1		2
14.2.1 Bought				1				1		1				1		4
14.2.1 Asked a teacher	1			1				2			2					6
14.2.1 At home		2	1			1										4
14.2.1 Eventually arrived						1							1			2
14.2.1 Photocopied the book																0
14.2.1 Ask around at school	1															1
14.2.1 Sent it in the mail	1															1
14.2.1 Hanna																0
14.2.1 Parents		1														1

Student Summary - Schools Continuing from Phase 1

Question	Altario	Carbon	Cessfor	Cluny	Delia	Endiang	Hussar	Lomond	Manybe	Morrin	Rosema	Tilley	Youngst	TOTAL
14.2.1 Borrowed from the shop teacher														0
14.2.1 Compromised			1		1			1			2			5
14.2.1 T/M		1							1		1			3
14.2.1 Science lab		3												3
14.2.1 Artroom		* 1												1
14.2.1 Principal got at a different school														0
14.2.1 Lethbridge														0
14.2.1 Phoned people and borrowed it		1												1
14.2.1 Girlfriend									1					1
14.2.1 School secretary									1					1
14.2.1 Librarian											1			1
14.2.1 Principal									* *			1		1
15. How were you prepared to take DLP														
15. School				2										2
15. Principal		12	6			5			10	12	3		5	53
15. Parents														0
15. Teacher		2				1								3
15. Students					5					2			1	8
15. Given a choice or an outline of the courses offered		8		2	8			3				7		28
15. Explained the rules		3					5			1	1			10
15. Assembly		1												1
15. People came to the school to explain DLP		1												1
15. Pamphlet/information sheet						1					5	7		13
15. Orientation to the FAX machine				1		2			5					8
15. Nothing		5			2		5	2	3	4	1	2		24
15. Told they had to take it	16						1			2				19
15.Bulletin board	1													1
15. Through the Alberta Correspondence School														0
15. Open house														0
15. Vice Principal														0
15. Given the books														0
15. Signed up for the course														0
15. Heard or saw DLP in action											1	2		3
15. T/M handouts														0
15. Heard about it from someone						1								1
15. One to one meeting with the school personal				2				2						4
15. Video - phone for discussion of French with tutor				1										1
15. All gr. 10's involved in an orientation session				1										1
15. Threatened with detentions if the assignments late														0
15. Told it wouldn't be easy														0
15. Orientation on the first day of school												5		5
15. Students were told how to contact the TM											2			2
15. Shown the distance learning														0
15. Time schedule was discussed							3				7			10
15. Contract signed											1			1
15. Principal demostrated the TC equipment			1											1
15. A meeting before the program started														0
15. Discussed it with the co-ordinator												1		1
15. DLP was suggested for more credits														0
15. Advised as to what courses to take														0
15. Orientation with students and parents								7						7
15. Orientation for the TC equipment							2							2
15. Orientation for the tape cassettes							1							1
15. Took it last year												2		2
15. Behavior handout												5		5
16. What changes would you make?														
18. Don't have to photocopy material before sent					1									1

Question	Acme	Bassand	Bow Isl	Castor	Coalhu	Consort	Corona	Duches	Foremo	Grassy	Irvine	Noblefo	Standar	Stirling	Warner		TOTAL
14.2.1 Borrowed from the shop teacher							1										1
14.2.1 Compromised	1	1															2
14.2.1 T/M					1												1
14.2.1 Science lab																	0
14.2.1 Artroom																	0
14.2.1 Principal got at a different school	1				1					1							3
14.2.1 Lethbridge														1			1
14.2.1 Phoned people and borrowed it																	0
14.2.1 Girlfriend																	0
14.2.1 School secretary		1															1
14.2.1 Librarian								1									1
14.2.1 Principal																	0
15. How were you prepared to take DLP																	
15. School			1		1			1	1								4
15. Principal	5	7		4	12			1		8	5	6	12	7			87
15. Parents	1			1	1								1				4
15. Teacher	4				1									6			11
15. Students	2			1	2												5
15. Given a choice or an outline of the courses offered	10					9			2	1		1		1	2		26
15. Explained the rules		5		1	2	9			1	1	1	1		1			22
15. Assembly				10		2											12
15. People came to the school to explain DLP																	0
15. Pamphlet/information sheet		4	2					7				2	2				17
15. Orientation to the FAX machine									1	1			1				3
15. Nothing	2	2	4	3	3	2	3	2	4		1	1	4	1	4		36
15. Told they had to take it			2		1									2			5
15.Bulletin board																	0
15. Through the Alberta Correspondence School							1										1
15. Open house				1													1
15. Vice Principal															4		4
15. Given the books					1								1				2
15. Signed up for the course					1												1
15. Heard or saw DLP in action						2											2
15. T/M handouts		2				2											4
15. Heard about it from someone																	0
15. One to one meeting with the school personal																	0
15. Video - phone for discussion of French with tutor																	0
15. All gr. 10's involved in an orientation session																	0
15. Threatened with detentions if the assignments late									1								1
15. Told it wouldn't be easy									1								1
15. Orientation on the first day of school		7															7
15. Students were told how to contact the TM		2															2
15. Shown the distance learning		1															1
15. Time schedule was discussed		2	1														3
15. Contract signed																	0
15. Principal demostrated the TC equipment																	0
15. A meeting before the program started								9									9
15. Discussed it with the co-ordinator								1									1
15. DLP was suggested for more credits			2														2
15. Advised as to what courses to take													2				2
15. Orientation with students and parents																	0
15. Orientation for the TC equipment																	0
15. Orientation for the tape cassettes																	0
15. Took it last year																	0
15. Behavior handout																	0
																	0
16. What changes would you make?																	0
16. Don't have to photocopy material before sent																	0

Student Summary - Schools Continuing from Phase 1

Question	Altario	Carbon	Cessfor	Cluny	Delia	Endiang	Hussar	Lomond	Manybe	Morrin	Rosems	Tilley	Youngst		TOTAL
16. Improve questions															0
16. Make it easier to understand															0
16. Speed up the FAX machine										1			1		2
16. Shorter lessons	5		1			2		1				2			11
16. Give more examples							1			3					4
16. More T/M-student interaction		1		1	2		2	3	5	4	2		1		21
16. Have a teacher available at the school			1					1							2
16. Have lessons count for more of the final %		1					2								3
16. Nothing	3	1			1	4	1			10	1				21
16. Talk to the T/M personally						1									1
16. Books need to be improved		2													2
16. Have the material sent in time to start															0
16. Quicker marking												1			1
16. Don't have to write final if high enough mark															0
16. Write a test after a certain subject area done															0
16. More time for lessons and for prepartion for quiz		5													5
16. T/M needs to give a decription of what is required															0
16. Do the course at your own pace	2	3									1				6
16. Have a qualified teacher with diverse knowledge	2	15			4					1					22
16. Do Gen. and Pers. Psyc at different times															0
16. More pictures in the Math 23 to visualize concepts															0
16. More quizzes in Law 30 instead of just 2 tests															0
16. More subjects to choose from		1		1	2			2				1			7
16. The reading could be more interesting		1													1
16. Not subjective marking system												1			1
16. Don't have to stay in the classroom after done															0
16. Review test at the end of each lesson															0
16. Reduce the number of students that T/M has							2								2
16. Two FAX machines - hard to access															0
16. Quizzes more specific															0
16. Condense the course	4							1		1					6
16. More space to write in															0
16. Keep the lessons and tests															0
16. More teleconferencing		1	3			1	2	2	1	1					11
16. Lesson length should be more uniform															0
16. Special time block w. specialized teachers to help										2					2
16. More practical section of the vocational courses							1		3			1			5
16. Meet French people															0
16. More students should take course at once - help												1			1
16. Reword the exams so they parallel the lessons															0
16. Not have to hand in the lessons as often										1					1
16. T/M should only have to send back a mark sheet													1		1
16. Use the mail instead of the FAX machine													1		1
16. Offer a Welding course	1														1
16. More phone calls to T/M	1														1
16. Bigger classroom					3										3
16. Get rid of the drafting in Industrial Ed					2										2
16. More information in the course outline					1										1
16. Slow Fr. tapes down/have fewer/improve			3			1	1		3		1	1			10
16. Get rid of the True/False questions															0
16. Have a seperate DLP room		2													2
16. Offer the courses in the summer															0
16. Take the FAX machine out of the DLP room		2										1			3
16. Write the test early if finish early		1													1
16. Reduce the amount time needed to set up taping-Fre		1													1
16. Delete the self-correcting excer.in the ACS mater.		1													1
16. Lessons to be done on computers/more time on							1	2	1		2	1			7
16. Outlines for exams		1					1								2
16. Mechanics - Too simple, want more concepts intro															0

Question	Acme	Bassand	Bow Isl	Castor	Coalhu	Consort	Coronat	Duchess	Foremo	Grassy	Irvine	Nobleto	Standar	Stirling	Warner	TOTAL
16. Improve questions							1									1
16. Make it easier to understand			1												1	2
16. Speed up the FAX machine	2	1				2		1				1	1		1	9
16. Shorter lessons									3	1			2	2	1	9
16. Give more examples		1							1	1	1			2	1	7
16. More T/M-student interaction	3			2	1	2		1		2	1	3			1	16
16. Have a teacher available at the school			1												1	2
16. Have lessons count for more of the final %						2									1	3
16. Nothing	10	4		9	3	5	2		1				4	3	6	47
16. Talk to the T/M personally								1						1		2
16. Books need to be improved									2		1			2		5
16. Have the material sent in time to start														1		1
16. Quicker marking					2			1				1		1		5
16. Don't have to write final if high enough mark														1		1
16. Write a test after a certain subject area done				1		1								1		3
16. More time for lessons and for prepartion for quiz	1	4		1										2		8
16. T/M needs to give a decription of what is required														1		1
16. Do the course at your own pace	1				3			3								7
16. Have a qualified teacher with diverse knowledge	3	4	2		2							1	1			13
16. Do Gen. and Pers. Psyc at different times																0
16. More pictures in the Math 23 to visualize concepts	1															1
16. More quizzes in Law 30 instead of just 2 tests	1															1
16. More subjects to choose from					1											1
16. The reading could be more interesting	1				2					1						4
16. Not subjective marking system					1											1
16. Don't have to stay in the classroom after done					2											2
16. Review test at the end of each lesson					1											1
16. Reduce the number of students that T/M has					1											1
16. Two FAX machines - hard to access				1												1
16. Quizzes more specific				1	1											2
16. Condense the course				1												1
16. More space to write in						2				1						3
16. Keep the lessons and tests						3										3
16. More teleconferencing						1		1				3				5
16. Lesson length should be more uniform		1				1										2
16. Special time block w. specialized teachers to help						1						1				2
16. More practical section of the vocational courses		1				1										2
16. Meet French people												1				1
16. More students should take course at once - help								2		1		1				4
16. Reword the exams so they parallel the lessons												2				2
16. Not have to hand in the lessons as often																0
16. T/M should only have to send back a mark sheet																0
16. Use the mail instead of the FAX machine																0
16. Offer a Welding course																0
16. More phone calls to T/M			1													1
16. Bigger classroom																0
16. Get rid of the drafting in Industrial Ed																0
16. More information in the course outline																0
16. Slow Fr. tapes down/have fewer/improve										2						2
16. Get rid of the True/False questions					1											1
16. Have a seperate DLP room					5			1					2			8
16. Offer the courses in the summer					1											1
16. Take the FAX machine out of the DLP room																0
16. Write the test early if finish early																0
16. Reduce the amount time needed to set up taping-Fre																0
16. Delete the self-correcting excer.in the ACS mater.																0
16. Lessons to be done on computers/more time on	1	4	1										2			8
16. Outlines for exams																0
16. Mechanics - Too simple, want more concepts intro				1												1

Student Summary - Schools Continuing from Phase 1

Question	Altario	Carbon	Cessfor	Cluny	Delia	Endiang	Hussar	Lomond	Manybe	Morrin	Rosema	Tilley	Youngst		TOTAL
16. Better supervision in the DLP room															0
16. Update					3		2	1			2		1		9
16. Not so many definitions															0
16. DLP schedule more flexible					3		1								4
16. Not so much weight on the final exam				1											1
16. More audio-visual			1				1	2	3		2	2			11
16. Better reference material															0
16. Assignments returned faster															0
16. More feedback from the TM								2			1				3
16. More testing															0
16. More practical lab work															0
16. All of the material for the course supplied															0
16. Have a Mechanics dictionary available									1						1
16. Have tutors available									1						1
16. More time to use ASPEN															0
16. Reorganize Math 23 so explanations are better															0
16. Meet the TM															0
16. Fewer Multiple choice questions															0
16. German - Tapes are hard to understand											1				1
16. TM for Spanish so that can take it											1				1
16. Cut Mech. and Bldg Constr. because of no shop avail.			1												1
16. More contact with the teacher in the DLP room								1							1
16. The tests should be more related to the course															0
16. More flexibility on the TM part															0
16. Drop the FAX - too diff. for TM to read															0
16. Better preparation for DLP															0
16. Better explanations and def. in Psyc & Soc. 20															0
16. Less reading															0
16. Revise the Math 30															0
16. Physics 30 - lessons 17-20 shouldn't be on test															0
16. Schedule more DLP time								1							1
16. Satellite teaching								2							2
16. Increase the amount of materials available								1							1
16. Revise answer sheets to accomo. longer answers								1							1
16. Change the penalty for late assignments							1								1
16. Change the self-quizzes in Fr. 20							2								2
16. Have a better and expanded glossary							1								1
16. Have terminology in bold print							1								1
16. Have better labelled diagrams							1								1
16. Change the designated test days							1								1
16. Take down the dividers in the DLP room												1			1
16. Have fewer students in the DLP room												1			1
16. Have more confidentiality with the lessons recieved												1			1
16. TM - more flexibility												1			1
16. The teacher should be able to give 10% of the mark												1			1
17. Continue to take courses this way - Yes	14	19	2	10	11	9	19	13	16	15	15	19	5		167
17. Continue to take courses this way - No	3	9	5		1			1		6	2	1			28
18. Recommend to others - Yes	12	17	6	10	12	9	19	13	16	16	17	17	5		169
18. Recommend to others - No	2	11	1					2	1	5		3			25

Question	Acme	Bassano	Bow Isl	Castor	Coalhu	Consort	Corona	Duches	Foremo	Grassy	Irvine	Nobleto	Standar	Stirling	Warner	TOTAL
16. Better supervision in the DLP room				3			1									4
16. Update				2	2			2			1					7
16. Not so many definitions					1											1
16. DLP schedule more flexible		1				2							1			4
16. Not so much weight on the final exam																0
16. More audio-visual		2						2	3	4	2		3			16
16. Better reference material								3	1							4
16. Assignments returned faster									1		1					2
16. More feedback from the TM											2					2
16. More testing		1									1		1			3
16. More practical lab work											1					1
16. All of the material for the course supplied		2								1						3
16. Have a Mechanics dictionary available																0
16. Have tutors available																0
16. More time to use ASPEN		1														1
16. Reorganize Math 23 so explanations are better		2														2
16. Meet the TM		1														1
16. Fewer Multiple choice questions		1														1
16. German - Tapes are hard to understand																0
16. TM for Spanish so that can take it																0
16. Cut Mech. and Bldg Constr. because of no shop avail.																0
16. More contact with the teacher in the DLP room								4								4
16. The tests should be more related to the course								1								1
16. More flexibility on the TM part								1								1
16. Drop the FAX - too diff. for TM to read			1													1
16. Better preparation for DLP			1													1
16. Better explanations and def. in Psyc & Soc. 20													1			1
16. Less reading													2			2
16. Revise the Math 30													1			1
16. Physics 30 - lessons 17-20 shouldn't be on test													1			1
16. Schedule more DLP time																0
16. Satellite teaching																0
16. Increase the amount of materials available																0
16. Revise answer sheets to accomo. longer answers																0
16. Change the penalty for late assignments																0
16. Change the self-quizzes in Fr. 20																0
16. Have a better and expanded glossary																0
16. Have terminology in bold print																0
16. Have better labelled diagrams																0
16. Change the designated test days																0
16. Take down the dividers in the DLP room																0
16. Have fewer students in the DLP room																0
16. Have more confidentiality with the lessons recieved																0
16. TM - more flexibility																0
16. The teacher should be able to give 10% of the mark																0
17. Continue to take courses this way - Yes	20	18	6	20	21	21	3	14	7	10	5	12	21	15	9	202
17. Continue to take courses this way - No	4	6	3	2	4	2	1	4	2	1	2		1	3	2	37
18. Recommend to others - Yes	22	22	8	20	21	23	4	14	10	10	5	11	21	17	11	219
18. Recommend to others - No	2	2	1	2	4			4		1	2	1	1	1		21

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Question	Acme	Bassano	Bow Isl	Castor	Coalhu	Consort	Corona	Duchess	Foremo	Grassy	Irvine	Noblefo	Standar	Stirling	Warner	TOTAL
16. Better supervision in the DLP room				3			1									4
16. Update				2	2			2			1					7
16. Not so many definitions					1											1
16. DLP schedule more flexible		1				2							1			4
16. Not so much weight on the final exam																0
16. More audio-visual		2						2	3	4	2		3			16
16. Better reference material								3	1							4
16. Assignments returned faster									1		1					2
16. More feedback from the TM											2					2
16. More testing		1									1		1			3
16. More practical lab work											1					1
16. All of the material for the course supplied		2								1						3
16. Have a Mechanics dictionary available																0
16. Have tutors available																0
16. More time to use ASPEN		1														1
16. Reorganize Math 23 so explanations are better		2														2
16. Meet the TM		1														1
16. Fewer Multiple choice questions		1														1
16. German - Tapes are hard to understand																0
16. TM for Spanish so that can take it																0
16. Cut Mech. and Bldg Constr. because of no shop avail.																0
16. More contact with the teacher in the DLP room								4								4
16. The tests should be more related to the course								1								1
16. More flexibility on the TM part								1								1
16. Drop the FAX - too diff. for TM to read			1													1
16. Better preparation for DLP			1													1
16. Better explanations and def. in Psyc & Soc. 20													1			1
16. Less reading													2			2
16. Revise the Math 30													1			1
16. Physics 30 - lessons 17-20 shouldn't be on test													1			1
16. Schedule more DLP time																0
16. Satellite teaching																0
16. Increase the amount of materials available																0
16. Revise answer sheets to accomo. longer answers																0
16. Change the penalty for late assignments																0
16. Change the self-quizzes in Fr. 20																0
16. Have a better and expanded glossary																0
16. Have terminology in bold print																0
16. Have better labelled diagrams																0
16. Change the designated test days																0
16. Take down the dividers in the DLP room																0
16. Have fewer students in the DLP room																0
16. Have more confidentiality with the lessons recieved																0
16. TM - more flexibility																0
16. The teacher should be able to give 10% of the mark																0
17. Continue to take courses this way - Yes	20	18	6	20	21	21	3	14	7	10	5	12	21	15	9	202
17. Continue to take courses this way - No	4	6	3	2	4	2	1	4	2	1	2		1	3	2	37
18. Recommend to others - Yes	22	22	8	20	21	23	4	14	10	10	5	11	21	17	11	219
18. Recommend to others - No	2	2	1	2	4			4		1	2	1	1	1		21

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APPENDIX F

SUMMARY OF COURSE OFFERINGS

Accounting 10	1	Noble Central	3	Carruthers	81	
Accounting 10	1	Della	3	Carruthers	82	
Accounting 10	1	Consort	3	Carruthers	83	
Accounting 10	1	Lomond	3	Carruthers	86	
Accounting 10	1	Lomond	3	Carruthers	87	
Accounting 10	1	Lomond	3	Carruthers	92	
Accounting 10	1	Lomond	3	Carruthers	96	
Accounting 10	1	Della	3	Carruthers	97	
Accounting 10	1	Lomond	3	Carruthers	98	
Accounting 10	1	New Cessford	3	Carruthers		wd
Accounting 10	1	Chamberlain	3	Carruthers		
Accounting 10	1	Chamberlain	3	Carruthers		
Accounting 10	1	Chamberlain	3	Carruthers		
Accounting 10	1	Chamberlain	3	Carruthers		
Accounting 10	1	Chamberlain	3	Carruthers		
Accounting 10	1	Chamberlain	3	Carruthers		
Accounting 10	1	Chamberlain	3	Carruthers		
Accounting 10	2	Coalhurst	3	Carruthers	58	
Accounting 10	2	Rosemary	3	Carruthers	58	
Accounting 10	2	Coalhurst	3	Carruthers	60	
Accounting 10	2	Noble Central	3	Carruthers	61	
Accounting 10	2	Noble Central	3	Carruthers	65	
Accounting 10	2	Duchess	3	Carruthers	73	
Accounting 10	2	Noble Central	3	Carruthers	80	
Accounting 10	2	Lomond	3	Carruthers	81	
Accounting 10	2	Tilley	3	Carruthers	83	
Accounting 10	2	Lomond	3	Carruthers	84	
Accounting 10	2	Bassano	3	Carruthers	85	
Accounting 10	2	Noble Central	3	Carruthers	85	
Accounting 10	2	Bassano	3	Carruthers	91	
Accounting 10	2	Hussar	3	Carruthers	91	
Accounting 10	2	Noble Central	3	Carruthers	91	
Accounting 10	2	Tilley	3	Carruthers	96	
Accounting 10	2	Chamberlain	3	Carruthers		wd
Accounting 10	2	Duchess	3	Carruthers		wd
Accounting 10	2	New Cessford	3	Carruthers		wd
Accounting 10	2	Foremost	3	Carruthers		wd
Accounting 10	2	Foremost	3	Carruthers	p	
Accounting 20	1	Morrin	3	Carruthers	56	
Accounting 20	1	Lomond	3	Carruthers	78	
Accounting 20	1	Lomond	3	Carruthers	91	
Accounting 20	1	Carbon	3	Carruthers		wd
Accounting 20	1	Carbon	3	Carruthers		wd
Accounting 20	1	Rosemary	3	Carruthers		wd
Accounting 20	1	Rosemary	3	Carruthers		wd
Accounting 20	2	Gus Wetter	3	Carruthers	36	
Accounting 20	2	Acme	3	Carruthers	42	
Accounting 20	2	Warner	3	Carruthers	76	
Accounting 20	2	Lomond	3	Carruthers	81	
Accounting 20	2	Warner	3	Carruthers	83	
Accounting 20	2	Chamberlain	3	Carruthers	87	
Accounting 20	2	Chamberlain	3	Carruthers	89	
Accounting 20	2	Chamberlain	3	Carruthers	89	
Accounting 20	2	Tilley	3	Carruthers	94	
Accounting 20	2	Rosemary	3	Carruthers		dc
Accounting 20	2	Acme	3	Carruthers		wd
Accounting 20	2	Carbon	3	Carruthers		wd
Accounting 20	2	Duchess	3	Carruthers		wd
Accounting 20	2	Gus Wetter	3	Carruthers		wd
Accounting 20	2	Gus Wetter	3	Carruthers		wd
Accounting 20	2	Foremost	3	Carruthers		wd

Accounting 20	2	Foremost	3	Carruthers		wd
Accounting 20	12	Delia	3	Carruthers		wd
Accounting 30	1	Lomond	5	Carruthers	65	
Accounting 30	1	Consort	5	Carruthers	74	
Accounting 30	1	Consort	5	Carruthers	75	
Accounting 30	1	Warner	5	Carruthers		wd
Accounting 30	1	Warner	5	Carruthers		wd
Accounting 30	1	Warner	5	Carruthers		wd
Accounting 30	2	Rosemary	5	Carruthers	56	
Accounting 30	2	Manyberries	5	Carruthers	59	
Accounting 30	2	Bassano	5	Carruthers	63	
Accounting 30	2	Duchess	5	Carruthers	67	
Accounting 30	2	Rosemary	5	Carruthers	68	
Accounting 30	2	Rosemary	5	Carruthers	70	
Accounting 30	2	Chamberlain	5	Carruthers	72	
Accounting 30	2	Rosemary	5	Carruthers	73	
Accounting 30	2	Coalhurst	5	Carruthers	88	
Accounting 30	2	Warner	5	Carruthers		dc
Accounting 30	2	Warner	5	Carruthers		dc
Accounting 30	2	Warner	5	Carruthers		dc
Accounting 30	2	Acme	5	Carruthers		wd
Accounting 30	2	Gus Wetter	5	Carruthers		wd
Accounting 30	2	Gus Wetter	5	Carruthers		wd
Accounting 30	2	Foremost	5	Carruthers		wd
Accounting 30	2	Foremost	5	Carruthers	f	
Accounting 30	2	Foremost	5	Carruthers	p	
Accounting 30	12	Duchess	5	Carruthers	53	
Accounting 30	12	Manyberries	5	Carruthers	58	
Accounting 30	12	Manyberries	5	Carruthers	82	
Accounting 30	12	Chamberlain	5	Carruthers		wd
Accounting 30	12	Chamberlain	5	Carruthers		wd
Agriculture 10	1	New Cessford	4	Williams	51	
Agriculture 10	1	New Cessford	4	Williams	65	
Agriculture 10	1	Rosemary	5	Williams	66	
Agriculture 10	1	Rosemary	4	Williams	72	
Agriculture 10	1	Rosemary	5	Williams	74	
Agriculture 10	2	Acme	3	Williams	50	
Agriculture 10	2	Tilley	5	Williams	55	
Agriculture 10	2	Duchess	3	Williams	74	
Agriculture 10	2	Delia	3	Williams		wd
Agriculture 10	2	Lomond	3	Williams		wd
Agriculture 10	2	Lomond	3	Williams		wd
Agriculture 10	12	Altario	5	Williams	52	
Agriculture 10	12	Youngstown	5	Williams	70	
Art 10	1	Cluny	5	Tullikopf	29	
Art 10	1	Cluny	5	Tullikopf	31	
Art 10	1	Lomond	5	Tullikopf	31	
Art 10	1	Lomond	5	Tullikopf	37	
Art 10	1	Lomond	5	Tullikopf	38	
Art 10	1	Cluny	0	Tullikopf	40	
Art 10	1	Lomond	5	Tullikopf	43	
Art 10	1	Cluny	5	Tullikopf	45	
Art 10	1	Cluny	5	Tullikopf	45	
Art 10	1	Cluny	3	Tullikopf	54	
Art 10	1	Cluny	3	Tullikopf	62	
Art 10	1	Cluny	3	Tullikopf	63	
Art 10	1	Acme	5	Tullikopf	70	
Art 10	1	Gus Wetter	3	Tullikopf	70	
Art 10	1	Gus Wetter	5	Tullikopf		wd

Art 10	1	Gus wetter	5	Tullikopf		wd
Art 10	2	Manyberries	5	Tullikopf	0	
Art 10	2	Manyberries	5	Tullikopf	51	
Art 10	2	Tilley	5	Tullikopf	62	
Art 10	2	Hussar	3	Tullikopf	68	
Art 10	2	Manyberries	4	Tullikopf	71	
Art 10	2	Tilley	5	Tullikopf	75	
Art 10	2	Stirling	3	Tullikopf	76	
Art 10	2	Tilley	3	Tullikopf	80	
Art 10	2	Stirling	3	Tullikopf	88	
Art 10	2	Chamberlain	5	Tullikopf		nc 92
Art 10	2	Coalhurst	4	Tullikopf		wd
Art 10	2	Chamberlain	5	Tullikopf		wd
Art 10	2	Irvine	5	Tullikopf		wd
Art 10	2	Stirling	5	Tullikopf		wd
Art 10	2	Foremost	5	Tullikopf		
Art 10	12	Carbon	5	Tullikopf	46	
Art 10	12	Carbon	5	Tullikopf	46	
Art 10	12	Carbon	5	Tullikopf	51	
Art 10	12	Rosemary	5	Tullikopf	54	
Art 10	12	Carbon	5	Tullikopf	56	
Art 10	12	Carbon	5	Tullikopf	58	
Art 10	12	Bassano	5	Tullikopf		wd
Art 10	12	Bassano	5	Tullikopf		wd
Art 10	12	Basssano	5	Tullikopf		wd
Art 10	12	Chamberlain	5	Tullikopf		wd
Art 10	12	Chamberlain	5	Tullikopf		wd
Art 10	12	Chamberlain	5	Tullikopf		wd
Art 20	2	Cluny	5	Tullikopf	65	
Art 20	12	Rosemary	5	Tullikopf	88	
Basic Bus 20	1	Carbon	3	Carruthers	51	
Basic Bus 20	1	Carbon	3	Carruthers	57	
Basic Bus 20	1	Coalhurst	3	Carruthers	63	
Basic Bus 20	1	Bassano	3	Carruthers	65	
Basic Bus 20	1	Rosemary	3	Carruthers	65	
Basic Bus 20	1	Duchess	3	Carruthers	66	
Basic Bus 20	1	Rosemary	3	Carruthers	70	
Basic Bus 20	1	Tilley	3	Carruthers	72	
Basic Bus 20	1	Duchess	3	Carruthers	80	
Basic Bus 20	1	Tilley	3	Carruthers	81	
Basic Bus 20	1	Tilley	3	Carruthers	91	
Basic Bus 20	1	Bassano	3	Carruthers		left school
Basic Bus 20	1	Bassano	3	Carruthers		wd
Basic Bus 20	1	Carbon	3	Carruthers		wd
Basic Bus 20	2	Altario	3	Carruthers	46	
Basic Bus 20	2	Rosemary	3	Carruthers	50	
Basic Bus 20	2	Altario	3	Carruthers	51	
Basic Bus 20	2	Altario	3	Carruthers	53	
Basic Bus 20	2	Bassano	5	Carruthers	54	
Basic Bus 20	2	Duchess	3	Carruthers	58	
Basic Bus 20	2	Bassano	3	Carruthers	59	
Basic Bus 20	2	Bassano	3	Carruthers	60	
Basic Bus 20	2	Altario	3	Carruthers	62	
Basic Bus 20	2	Altario	3	Carruthers	64	
Basic Bus 20	2	Bassano	3	Carruthers	66	
Basic Bus 20	2	Standard	3	Carruthers	69	
Basic Bus 20	2	Bassano	3	Carruthers	70	
Basic Bus 20	2	Bassano	3	Carruthers	76	
Basic Bus 20	2	Youngstown	3	Carruthers	78	
Basic Bus 20	2	Hussar	3	Carruthers	86	

Basic Bus 20	2	Bassano	3	Carruthers		wd
Biology 10	1	Altario	3	Russell	42	
Biology 10	1	Altario	3	Russell	42	
Biology 10	1	Duchess	3	Russell	42	
Biology 10	1	Delia	3	Russell	43	
Biology 10	1	Coalhurst	3	Russell	50	
Biology 10	1	Duchess	3	Russell	50	
Biology 10	1	Duchess	3	Russell	50	
Biology 10	1	Cluny	3	Russell	51	
Biology 10	1	Coalhurst	3	Russell	56	
Biology 10	1	Duchess	3	Russell		wd
Biology 10	1	Chamberlain	3	Russell		
Biology 10	2	Duchess	3	Russell	36	
Biology 10	2	Delia	3	Russell	40	
Biology 10	2	Delia	3	Russell	41	
Biology 10	2	Lomond	3	Russell	46	
Biology 10	2	Stirling	3	Russell	54	
Biology 10	2	Youngstown	3	Russell	57	
Biology 10	2	Morrin	3	Russell	63	
Biology 10	2	Noble Central	5	Russell	64	
Biology 10	2	Morrin	3	Russell	74	
Biology 20	2	Rosemary	5	Russell	55	
Biology 20	2	Morrin	3	Russell	59	
Biology 20	2	Manyberries	5	Russell	88	
Biology 20	2	Altario	3	Russell		wd
Biology 20	2	Altario	3	Russell		wd
Biology 20	2	Morrin	3	Russell		wd
Biology 20	2	Standard	3	Russell		wd
Biology 30	1	Cluny	5	Russell	50	
Biology 30	1	Manyberries	5	Russell	54	
Biology 30	1	Manyberries	5	Russell	55	
Biology 30	2	Standard	5	Russell	55	
Biology 30	2	Cluny	5	Russell	57	
Biology 30	2	Standard	5	Russell	61	
Biology 30	2	Standard	5	Russell	70	
Biology 30	2	Standard	5	Russell	86	
Biology 30	12	Endiang	5	Russell	58	
Biology 30	12	Hussar	5	Russell	70	
Biology 30	12	Carbon	5	Russell	90	
Biology 30	12	Endiang	5	Russell		wd
Build Const 12	1	Carbon	5	Smith	55	
Build Const 12	1	Morrin	5	Smith	58	
Build Const 12	1	Morrin	5	Smith	59	
Build Const 12	1	Rosemary	5	Smith	59	
Build Const 12	1	Lomond	5	Smith	64	
Build Const 12	1	Consort	5	Smith	65	
Build Const 12	1	Consort	5	Smith	66	
Build Const 12	1	New Cessford	5	Smith	72	
Build Const 12	1	Morrin	5	Smith	79	
Build Const 12	1	Morrin	5	Smith	80	
Build Const 12	1	New Cessford	5	Smith	80	
Build Const 12	1	Morrin	5	Smith	87	
Build Const 12	1	Morrin	5	Smith	90	
Build Const 12	1	Rosemary	5	Smith		inc
Build Const 12	2	Morrin	5	Smith	37	
Build Const 12	2	Delia	5	Smith	50	
Build Const 12	2	Delia	5	Smith	50	
Build Const 12	2	Lomond	5	Smith	50	

Build Const 12	2	Lomond	5	Smith	50	
Build Const 12	2	Delia	5	Smith	56	
Build Const 12	2	Duchess	5	Smith	60	
Build Const 12	2	Endiang	5	Smith	60	
Build Const 12	2	Tilley	5	Smith	67	
Build Const 12	2	New Cessford	5	Smith	68	
Build Const 12	2	tilley	5	Smith	68	
Build Const 12	2	Delia	5	Smith	71	
Build Const 12	2	Rosemary	5	Smith		dc
Build Const 12	2	Coalhurst	5	Smith		wd
Build Const 12	2	Duchess	5	Smith		wd
Build Const 12	12	Bassano	5	Smith	50	
Build Const 12	12	Bassano	5	Smith	50	
Build Const 12	12	Bassano	5	Smith	51	
Build Const 12	12	Bassano	5	Smith	51	
Build Const 12	12	Bassano	5	Smith	52	
Build Const 12	12	Rosemary	5	Smith	55	
Build Const 12	12	Bassano	5	Smith	57	
Build Const 12	12	Duchess	5	Smith	57	
Build Const 12	12	Hussar	5	Smith	65	
Build Const 12	12	Hussar	5	Smith	67	
Build Const 12	12	Carbon	5	Smith	72	
Build Const 12	12	Rosemary	5	Smith		dc
Build Const 12	12	Bassano	5	Smith		wd
Build Const 12	12	Bassano	5	Smith		wd
Build Const 12	12	Bassano	5	Smith		wd
Build Const 12	12	Bassano	5	Smith		wd
CALM 20	1	Morrin	3	Williams	75	
CALM 20	2	Bassano	3	Williams	51	
CALM 20	2	Warner	3	Williams	53	
CALM 20	2	Lomond	3	Williams	54	
CALM 20	2	Morrin	3	Williams	54	
CALM 20	2	Warner	3	Williams	56	
CALM 20	2	Warner	3	Williams	60	
CALM 20	2	Morrin	3	Williams	64	
CALM 20	2	Morrin	3	Williams	71	
CALM 20	2	Morrin	3	Williams	78	
CALM 20	2	Gus Wetter	3	Williams		wd
CALM 20	2	Gus Wetter	3	Williams		wd
CALM 20	2	Morrin	3	Williams		
Chem 10	1	Acme	3	Russell	36	
Chem 10	1	Gus Wetter	3	Russell	50	
Chem 10	1	Gus Wetter	3	Russell	53	
Chem 10	1	Lomond	3	Russell		wd
Chem 10	2	Consort	3	Russell	45	
Chem 10	2	Morrin	3	Russell	55	
Chem 10	2	Morrin	3	Russell	70	
Chem 10	2	New Cessford	3	Russell	75	
Chem 20	1	Gus Wetter	3	Russell	29	
Chem 20	1	Tilley	3	Russell	50	
Chem 20	1	Tilley	3	Russell	51	
Chem 20	1	Duchess	3	Russell	52	
Chem 20	1	Gus Wetter	3	Russell	54	
Chem 20	1	Lomond	3	Russell		wd
Chem 20	1	Warner	3	Russell		wd
Chem 20	2	Altario	3	Russell	35	
Chem 20	2	Stirling	3	Russell	37	
Chem 20	2	Altario	3	Russell	40	
Chem 20	2	Consort	3	Russell	46	

Chem 20	2	Stirling	3	Russell	53	
Chem 20	2	Morrin	3	Russell	60	
Chem 20	2	Acme	5	Russell	65	
Chem 20	2	Consort	3	Russell		wd
Chem 20	2	Delia	3	Russell		wd
Chem 20	2	Gus Wetter	5	Russell		wd
Chem 20	2	Morrin	3	Russell		wd
Chem 20	2	Warner	3	Russell		wd
Chem 30	1	Bassano	5	Russell	83	
Chem 30	2	Gus Wetter	5	Russell	65	
Chem 30	12	Bassano	5	Russell		wd
Chem 30	12	Endiang	5	Russell		wd
Chem 30	12	Endiang	5	Russell		wd
Clothing & Tex 10	2	Duchess	5	Williams	61	
Clothing & Tex 10	2	Rosemary	5	Williams	87	
Clothing & Tex 10	2	Rosemary	5	Williams		inc
Clothing & Tex 10	2	Rosemary	5	Williams	66	
Clothing & Tex 10	2	Rosemary	5	Williams	91	
Drafting 10	12	Duchess	5	Smith	67	unlist
Drafting 10	1	Rosemary	3	Smith	29	
Drafting 10	1	Tilley	3	Smith	54	
Drafting 10	1	Lomond	5	Smith	70	
Drafting 10	1	Lomond	5	Smith	75	
Drafting 10	1	Tilley	5	Smith	76	
Drafting 10	1	Acme	5	Smith	80	
Drafting 10	1	Rosemary	3	Smith	83	
Drafting 10	1	Lomond	5	Smith	85	
Drafting 10	1	Cluny	3	Smith		wd
Drafting 10	1	Morrin	3	Smith		wd
Drafting 10	2	Lomond	5	Smith	51	
Drafting 10	2	Chamberlain	3	Smith	52	
Drafting 10	2	Morrin	3	Smith	55	
Drafting 10	2	Carbon	5	Smith	56	
Drafting 10	2	Morrin	3	Smith	58	
Drafting 10	2	Duchess	3	Smith	60	
Drafting 10	2	Duchess	3	Smith	67	
Drafting 10	2	Stirling	3	Smith	74	
Drafting 10	2	Duchess	3	Smith	77	
Drafting 10	2	Morrin	3	Smith	80	
Drafting 10	2	Coronation	3	Smith	90	
Drafting 10	2	Tilley	4	Smith	90	
Drafting 10	2	Noble Central	5	Smith		wd
Drafting 10	12	Morrin	5	Smith	0	
Drafting 10	12	Rosemary	5	Smith	60	
Drafting 10	12	Duchess	5	Smith	65	
Drafting 10	12	Rosemary	5	Smith	65	
Drafting 10	12	Duchess	5	Smith	70	
Drafting 10	12	Duchess	5	Smith	72	
Drafting 10	12	Carbon	5	Smith	94	
Drafting 10	12	Duchess	5	Smith		wd
Electronics 12	1	Tilley	5	Beardsley	83	
Electronics 12	1	Tilley	5	Beardsley		wd
English 10	1	Acme	5	Gustavsen		wd
English 10	1	Acme	5	Gustavsen		wd
English 10	2	Sen Gershaw	5	Gustavsen	58	
English 10	2	Coronation	5	Gustavsen	70	
English 10	2	Coronation	5	Gustavsen	70	
English 10	2	Duchess	5	Gustavsen		incom

Terms 1 and 2 sorted by course/term/mark

English 10	2	Noble Central	5	Gustavsen		wd
English 10	2	Foremost	5	Gustavsen		
English 13	1	Lomond	5	Gustavsen	50	
English 13	1	Manyberries	5	Gustavsen	63	
English 13	1	Manyberries	5	Gustavsen	64	
English 13	1	Tilley	5	Gustavsen	64	
English 13	1	Acme	5	Gustavsen	65	
English 13	1	Standard	5	Gustavsen	71	
English 13	1	Altario	5	Gustavsen		wd
English 13	1	Gus Wetter	5	Gustavsen		wd
English 13	1	Lomond	5	Gustavsen		wd
English 13	2	Altario	5	Gustavsen	47	
English 13	2	Standard	5	Gustavsen	50	
English 13	2	Acme	5	Gustavsen	51	
English 13	2	Acme	5	Gustavsen	52	
English 13	2	Acme	5	Gustavsen	53	
English 13	2	Altario	5	Gustavsen	53	
English 13	2	Standard	5	Gustavsen	55	
English 13	2	Altario	5	Gustavsen	58	
English 13	2	Standard	5	Gustavsen	58	
English 13	2	Standard	5	Gustavsen	58	
English 13	2	Acme	5	Gustavsen	59	
English 13	2	Acme	5	Gustavsen	59	
English 13	2	Standard	5	Gustavsen	59	
English 13	2	Consort	5	Gustavsen	60	
English 13	2	Standard	5	Gustavsen	60	
English 13	2	Duchess	5	Gustavsen	61	
English 13	2	Morrin	5	Gustavsen	63	
English 13	2	Morrin	5	Gustavsen	65	
English 13	2	Altario	5	Gustavsen	66	
English 13	2	Duchess	5	Gustavsen	68	
English 13	2	Standard	5	Gustavsen	69	
English 13	12	Rosemary	5	Gustavsen	43	
English 13	12	Carbon	5	Gustavsen	52	
English 13	12	Rosemary	5	Gustavsen	54	
English 13	12	Carbon	5	Gustavsen	55	
English 13	12	Carbon	5	Gustavsen	56	
English 13	12	Carbon	5	Gustavsen	60	
English 13	12	Carbon	5	Gustavsen	72	
English 13	12	Carbon	5	Gustavsen	74	
English 20	1	Consort	5	Gustavsen		wd
English 20	1	Delia	5	Gustavsen		wd
English 20	2	Acme	5	Gustavsen	57	
English 20	2	Acme	5	Gustavsen	58	
English 20	2	Delia	5	Gustavsen	68	
English 20	2	Consort	5	Gustavsen	77	
English 20	2	Irvine	5	Gustavsen		wd
English 20	12	Lomond	5	Gustavsen	77	
English 23	1	Lomond	5	Gustavsen	50	
English 23	1	Acme	5	Gustavsen	55	
English 23	1	Lomond	5	Gustavsen	56	
English 23	1	Tilley	5	Gustavsen	56	
English 23	1	Tilley	5	Gustavsen	57	
English 23	1	Acme	5	Gustavsen	58	
English 23	1	Cluny	5	Gustavsen	58	
English 23	1	Manyberries	5	Gustavsen	60	
English 23	1	Acme	5	Gustavsen	61	
English 23	1	Acme	5	Gustavsen	67	
English 23	1	Acme	5	Gustavsen	71	

English 23	2	Noble Central	5	Gustavsen	50	
English 23	2	Acme	5	Gustavsen	52	
English 23	2	Noble Central	5	Gustavsen	56	
English 23	2	Delia	5	Gustavsen	58	
English 23	2	Standard	5	Gustavsen	62	
English 23	2	Standard	5	Gustavsen	66	
English 23	2	Standard	5	Gustavsen	67	
English 23	2	Standard	5	Gustavsen	83	
English 23	2	Altario	5	Gustavsen		wd
English 23	2	Manyberries	5	Gustavsen		wd
English 23	12	Carbon	5	Gustavsen	51	
English 23	12	Carbon	5	Gustavsen	52	
English 23	12	Endiang	5	Gustavsen	60	
English 23	12	Lomond	5	Gustavsen	67	
English 23	12	Carbon	5	Gustavsen		wd
English 23	12	Morrin	5	Gustavsen		wd
English 23	12	Noble Central	5	Gustavsen		wd
English 23	12	Standard	5	Gustavsen		wd
English 30	1	Carbon	5	Gustavsen	72	
English 30	1	Chamberlain	5	Gustavsen		
English 30	2	Gus Wetter	5	Gustavsen	61	
English 30	2	Acme	5	Gustavsen		wd
English 30	2	Delia	5	Gustavsen		wd
English 30	2	Morrin	5	Gustavsen		wd
English 30	12	Carbon	5	Gustavsen	78	
English 33	1	Rosemary	5	Gustavsen	0	
English 33	1	Morrin	5	Gustavsen	37	
English 33	1	Tilley	5	Gustavsen	45	
English 33	1	Acme	5	Gustavsen	50	
English 33	1	Tilley	5	Gustavsen	50	
English 33	1	Acme	5	Gustavsen	54	
English 33	1	Tilley	5	Gustavsen	54	
English 33	1	Altario	5	Gustavsen	55	
English 33	1	Acme	5	Gustavsen	56	
English 33	1	Acme	5	Gustavsen	56	
English 33	1	Altario	5	Gustavsen	60	
English 33	1	Tilley	5	Gustavsen	60	
English 33	1	Acme	5	Gustavsen	61	
English 33	1	manyberries	5	Gustavsen	66	
English 33	1	Warner	5	Gustavsen	66	
English 33	1	Manyberries	5	Gustavsen	67	
English 33	1	Manyberries	5	Gustavsen	69	
English 33	1	Altario	5	Gustavsen	71	
English 33	1	Acme	5	Gustavsen		wd
English 33	1	Noble Central	5	Gustavsen		wd
English 33	2	Stirling	5	Gustavsen	35	
English 33	2	Cluny	5	Gustavsen	41	
English 33	2	Lomond	5	Gustavsen	42	teacher mr
English 33	2	Lomond	5	Gustavsen	52	teacher mr
English 33	2	Tilley	5	Gustavsen	57	
English 33	2	Tilley	5	Gustavsen	62	
English 33	2	Coronation	5	Gustavsen	63	
English 33	2	Cluny	5	Gustavsen	65	
English 33	2	Altario	5	Gustavsen	72	
English 33	2	Cluny	5	Gustavsen		wd
English 33	2	Coronation	5	Gustavsen		wd
English 33	2	Noble Central	5	Gustavsen		wd
English 33	2	Tilley	5	Gustavsen		wd
English 33	2	Tilley	5	Gustavsen		wd
English 33	12	Lomond	5	Gustavsen	48	teacher mr

English 33	1 2	Lomond	5	Gustavsen	5 0	teacher mr
English 33	1 2	Carbon	5	Gustavsen	5 8	
English 33	1 2	Carbon	5	Gustavsen	7 0	
Fooc Science 10	1	Youngstown	5	Williams	8 5	
Fooc Science 10	2	Rosemary	5	Williams	3 3	
Fooc Science 10	2	Hussar	5	Williams	5 0	
Food Science 10	2	Rosemary	5	Williams		dc
Food Science 10	2	Tilley	5	Williams		moved
Food Science 10	2	Duchess	5	Williams		wd
Food Science 10	2	New Cessford	5	Williams		wd
French 10	1	Cluny	5	Gustavsen	5 2	
French 10	1	Acme	5	Gustavsen	5 5	
French 10	1	Consort	5	Gustavsen	5 9	
French 10	1	Altario	5	Gustavsen	5 9	
French 10	1	New Cessford	5	Gustavsen	6 5	
French 10	1	Altario	5	Gustavsen	6 6	
French 10	1	Altario	5	Gustavsen	6 8	
French 10	1	Cluny	5	Gustavsen	6 8	
French 10	1	Acme	5	Gustavsen	7 0	
French 10	1	Acme	5	Gustavsen	7 3	
French 10	1	Altario	5	Gustavsen	7 4	
French 10	1	Acme	5	Gustavsen	7 5	
French 10	1	Acme	5	Gustavsen	8 1	
French 10	1	Endiang	5	Gustavsen	8 7	
French 10	1	Altario	5	Gustavsen	9 0	
French 10	1	Cluny	5	Gustavsen		wd
French 10	2	Lomond	5	Gustavsen	5 0	
French 10	2	Acme	5	Gustavsen	5 5	
French 10	2	Chamberlain	5	Gustavsen	6 5	
French 10	2	Delia	5	Gustavsen	7 7	
French 10	2	Manyberries	5	Gustavsen	8 0	
French 10	2	Noble Central	5	Gustavsen	8 1	
French 10	1 2	Morrin	5	gustavsen	0	
French 10	1 2	Rosemary	5	Gustavsen	5 0	
French 10	1 2	Tilley	5	Gustavsen	5 0	
French 10	1 2	Manyberries	5	Gustavsen	5 1	
French 10	1 2	Noble Central	5	Gustavsen	5 2	
French 10	1 2	Manyberries	5	Gustavsen	5 4	
French 10	1 2	Endiang	5	Gustavsen	5 7	
French 10	1 2	Endiang	5	Gustavsen	6 0	
French 10	1 2	Rosemary	5	Gustavsen	6 0	
French 10	1 2	Tilley	5	Gustavsen	6 2	
French 10	1 2	Endiang	5	Gustavsen	6 5	
French 10	1 2	Endiang	5	Gustavsen	6 5	
French 10	1 2	Manyberries	5	Gustavsen	6 9	
French 10	1 2	Rosemary	5	Gustavsen	7 1	
French 10	1 2	Rosemary	5	Gustavsen	7 2	
French 10	1 2	Tilley	5	Gustavsen	7 3	
French 10	1 2	Lomond	5	Gustavsen	7 4	
French 10	1 2	Manyberries	5	Gustavsen	7 4	
French 10	1 2	Lomond	5	Gustavsen	7 5	
French 10	1 2	Manyberries	5	Gustavsen	8 0	
French 10	1 2	Chamberlain	5	Gustavsen	8 3	
French 10	1 2	Endiang	5	Gustavsen	8 3	
French 10	1 2	Lomond	5	Gustavsen	8 3	
French 10	1 2	Endiang	5	Gustavsen	8 5	
French 10	1 2	Morrin	5	Gustavsen	8 8	
French 10	1 2	New Cessford	5	Gustavsen	8 8	
French 10	1 2	New Cessford	5	Gustavsen	8 8	
French 10	1 2	Carbon	5	Gustavsen	8 9	

French 10	1 2	Tilley	5	Gustavsen	9 1	
French 10	1 2	Carbon	5	Gustavsen	9 3	
French 10	1 2	Rosemary	5	Gustavsen	9 9	
French 10	1 2	Rosemary	5	Gustavsen		dc
French 10	1 2	Lomond	5	Gustavsen		wd
French 10	1 2	Lomond	5	Gustavsen		wd
French 10	1 2	Tilley	5	Gustavsen		wd
French 10	1 2	Tilley	5	Gustavsen		wd
French 20	1	Acme	5	Gustavsen	4 5	
French 20	1	Acme	5	Gustavsen	5 9	
French 20	1	Tilley	5	Gustavsen	7 9	
French 20	1	Carbon	5	Gustavsen	8 5	
French 20	1	Carbon	5	Gustavsen	8 8	
French 20	1	Carbon	5	Gustavsen		wd
French 20	2	Altario	5	Gustavsen	6 5	
French 20	2	New Cessford	5	Gustavsen	6 6	
French 20	2	Hussar	5	Gustavsen	8 0	
French 20	2	Consort	5	Gustavsen	8 6	
French 20	2	Hussar	5	Gustavsen	9 1	
French 20	2	Endiang	5	Gustavsen	9 3	
French 20	2	Rosemary	5	Gustavsen		dc
French 20	2	Hussar	5	Gustavsen		wd
French 20	1 2	Chamberlain	5	Gustavsen	5 5	
French 20	1 2	Noble Central	5	Gustavsen	7 3	
French 20	1 2	Noble Central	5	Gustavsen	8 0	
French 20	1 2	Chamberlain	5	Gustavsen		wd
French 20	1 2	Manyberries	5	Gustavsen		wd
French 20	1 2	Nobel Central	5	Gustavsen		
French 30	1	Consort	5	Gustavsen	7 0	
French 30	1	Morrin	5	Gustavsen	7 0	
French 30	1	Hussar	5	Gustavsen	8 0	
French 30	1	Rosemary	5	Gustavsen	8 6	
French 30	1	Consort	5	Gustavsen	9 0	
French 30	1	Morrin	5	Gustavsen	9 7	
French 30	2	Duchess	5	Gustavsen		wd
French 30	1 2	Hussar	5	Gustavsen	6 4	
Gen Psych 20	1	Standard	3	Huddle	4 2	
Gen Psych 20	1	Gus Wetter	3	Huddle	5 0	
Gen Psych 20	1	Gus Wetter	3	Huddle	5 0	
Gen Psych 20	1	Gus Wetter	3	Huddle	5 1	
Gen Psych 20	1	Gus Wetter	3	Huddle	5 1	
Gen Psych 20	1	Gus Wetter	3	Huddle	5 2	
Gen Psych 20	1	Standard	3	Huddle	5 2	
Gen Psych 20	1	Rosemary	3	Huddle	5 6	
Gen Psych 20	1	Carbon	3	Huddle	5 8	
Gen Psych 20	1	Carbon	3	Huddle	6 0	
Gen Psych 20	1	Carbon	3	Huddle	6 0	
Gen Psych 20	1	Cluny	3	Huddle	6 0	
Gen Psych 20	1	Coalhurst	3	Huddle	6 1	
Gen Psych 20	1	Gus Wetter	3	Huddle	6 1	
Gen Psych 20	1	Gus Wetter	3	Huddle	6 2	
Gen Psych 20	1	Acme	3	Huddle	6 6	
Gen Psych 20	1	Acme	3	Huddle	6 6	
Gen Psych 20	1	Duchess	3	Huddle	6 7	
Gen Psych 20	1	Gus Wetter	3	Huddle	6 8	
Gen Psych 20	1	Hussar	3	Huddle	6 9	
Gen Psych 20	1	Cluny	3	Huddle	7 0	
Gen Psych 20	1	Gus Wetter	3	Huddle	7 0	
Gen Psych 20	1	Carbon	3	Huddle	7 3	

Gen Psych 20	1	Duchess	3	Huddle	76	
Gen Psych 20	1	Standard	3	Huddle	78	
Gen Psych 20	1	Rosemary	3	Huddle	82	
Gen Psych 20	1	Gus Wetter	3	Huddle	84	
Gen Psych 20	1	Morrin	3	Huddle	85	
Gen Psych 20	1	Acme	3	Huddle		wd
Gen Psych 20	1	Cluny	3	Huddle		wd
Gen Psych 20	1	Gus Wetter	3	Huddle		wd
Gen Psych 20	1	Gus Wetter	3	Huddle		wd
Gen Psych 20	1	Rosemary	3	Huddle		wd
Gen Psych 20	1	Tilley	3	Huddle		wd
Gen Psych 20	1	Chamberlain	3	Huddle		
Gen Psych 20	2	Acme	3	Huddle	51	
Gen Psych 20	2	Consort	3	Huddle	51	
Gen Psych 20	2	Noble Central	3	Huddle	52	
Gen Psych 20	2	Noble Central	3	Huddle	52	
Gen Psych 20	2	Standard	3	Huddle	56	
Gen Psych 20	2	Acme	3	Huddle	57	
Gen Psych 20	2	Gus Wetter	3	Huddle	57	
Gen Psych 20	2	Standard	3	Huddle	59	
Gen Psych 20	2	Acme	3	Huddle	62	
Gen Psych 20	2	Gus Wetter	3	Huddle	62	
Gen Psych 20	2	Standard	3	Huddle	65	
Gen Psych 20	2	Irvine	3	Huddle	67	
Gen Psych 20	2	Hussar	3	Huddle	68	
Gen Psych 20	2	Noble Central	3	Huddle	68	
Gen Psych 20	2	Cluny	3	Huddle	71	
Gen Psych 20	2	Noble Central	3	Huddle	71	
Gen Psych 20	2	Acme	3	Huddle	74	
Gen Psych 20	2	Standard	3	Huddle	75	
Gen Psych 20	2	Acme	3	Huddle	77	
Gen Psych 20	2	Chamberlain	3	Huddle	78	
Gen Psych 20	2	Bassano	3	Huddle	79	
Gen Psych 20	2	Morrin	3	Huddle	80	
Gen Psych 20	2	Coalhurst	3	Huddle	83	
Gen Psych 20	2	Consort	3	Huddle	83	
Gen Psych 20	2	Standard	3	Huddle	85	
Gen Psych 20	2	Altario	3	Huddle	86	
Gen Psych 20	2	Consort	3	Huddle	86	
Gen Psych 20	2	Consort	3	Huddle	87	
Gen Psych 20	2	Hussar	3	Huddle	87	
Gen Psych 20	2	Noble Central	3	Huddle	88	
Gen Psych 20	2	Consort	3	Huddle	89	
Gen Psych 20	2	New Cessford	3	Huddle	90	
Gen Psych 20	2	Standard	3	Huddle	90	
Gen Psych 20	2	Standard	3	Huddle	91	
Gen Psych 20	2	Carbon	3	Huddle	92	
Gen Psych 20	2	Consort	3	Huddle		moved
Gen Psych 20	2	Coalhurst	3	Huddle		wd
Gen Psych 20	2	Standard	3	Huddle		wd
Gen Psych 20	2	Foremost	3	Huddle		
Gen Psych 20	2	Coalhurst	3	Huddle	45	
Gen Psych 20	12	Chamberlain	3	Huddle	74	
Gen Psych 20	12	Delia	3	Huddle	80	
Gen Soc 20	1	Cluny	3	Huddle	46	
Gen Soc 20	1	Consort	3	Huddle	54	
Gen Soc 20	1	Foremost	3	Huddle	58	
Gen Soc 20	1	Irvine	3	Huddle	61	
Gen Soc 20	1	Consort	3	Huddle	63	
Gen Soc 20	1	Cluny	3	Huddle	65	
Gen Soc 20	1	Cluny	3	Huddle	67	

Gen Soc 20	1	Cluny	3	Huddle	68	
Gen Soc 20	1	Foremost	3	Huddle	74	
Gen Soc 20	1	Foremost	3	Huddle	74	
Gen Soc 20	1	Consort	3	Huddle	75	
Gen Soc 20	1	Cluny	3	Huddle	78	
Gen Soc 20	1	Foremost	3	Huddle	79	
Gen Soc 20	1	Foremost	3	Huddle	82	
Gen Soc 20	1	Foremost	3	Huddle	82	
Gen Soc 20	1	Duchess	3	Huddle	87	
Gen Soc 20	1	Delia	3	Huddle		wd
Gen Soc 20	2	Consort	3	Huddle	44	
Gen Soc 20	2	Bassano	3	Huddle	50	
Gen Soc 20	2	Consort	3	Huddle	50	
Gen Soc 20	2	Standard	3	Huddle	53	
Gen Soc 20	2	Consort	3	Huddle	56	
Gen Soc 20	2	Sen Gershaw	3	Huddle	56	
Gen Soc 20	2	Standard	3	Huddle	56	
Gen Soc 20	2	Rosemary	3	Huddle	60	
Gen Soc 20	2	Standard	3	Huddle	60	
Gen Soc 20	2	Acme	3	Huddle	63	
Gen Soc 20	2	Rosemary	3	Huddle	64	
Gen Soc 20	2	Irvine	3	Huddle	67	
Gen Soc 20	2	Hussar	3	Huddle	68	
Gen Soc 20	2	Cluny	3	Huddle	69	
Gen Soc 20	2	Morrin	3	Huddle	69	
Gen Soc 20	2	Duchess	3	Huddle	73	
Gen Soc 20	2	Coalhurst	3	Huddle	79	
Gen Soc 20	2	Delia	3	Huddle	85	
Gen Soc 20	2	Chamberlain	3	Huddle	87	
Gen Soc 20	2	Bassano	3	Huddle	91	
Gen Soc 20	2	Warner	3	Huddle		dc
Gen Soc 20	2	Sen Gershaw	3	Huddle		inc
Gen Soc 20	2	Sen Gershaw	3	Huddle		inc
Gen Soc 20	2	Gus Wetter	5	Huddle		wd
Gen Soc 20	2	Foremost	3	Huddle		
Gen Soc 20	2	Sen Gershaw	3	Huddle		
German 10	1	Carbon	5	Janz	50	
German 10	1	Acme	5	Janz	65	
German 10	1	Duchess	5	Janz		wd
German 10	1	Gus Wetter	5	Janz		wd
German 10	1	Gus Wetter	5	Janz		wd
German 10	2	Acme	5	Janz	53	
German 10	2	Consort	5	Janz	75	
German 10	12	Tilley	5	Janz	37	
German 10	12	Rosemary	5	Janz	72	
German 10	12	Rosemary	5	Janz	72	
German 10	12	Morrin	5	Janz	78	
German 10	12	Rosemary	5	Janz	78	
German 10	12	Gus Wetter	5	Janz	83	
German 10	12	Morrin	5	Janz		wd
German 10	12	Rosemary	5	Janz		wd
German 20	2	Acme	5	Janz	58	
H & Pers Dev 10	1	Consort	5	Williams	54	
H & Pers Dev 10	1	Lomond	5	Williams	54	
H & Pers Dev 10	1	Consort	3	Williams	57	
H & Pers Dev 10	2	Noble Central	5	Williams	50	
H & Pers Dev 10	2	Carbon	3	Williams	56	
H & Pers Dev 10	2	Lomond	5	Williams	56	
H & Pers Dev 10	2	Consort	3	Willams	59	

Terms 1 and 2 sorted by course/term/mark

H & Pers Dev 10	2	Tilley	3	Williams	64	
H & Pers Dev 10	2	Carbon	3	Williams	66	
H & Pers Dev 10	2	Tilley	3	Williams	68	
H & Pers Dev 10	2	Noble Central	5	Williams	71	
H & Pers Dev 10	2	Carbon	3	Williams	75	
H & Pers Dev 10	2	Consort	5	Williams	75	
H & Pers Dev 10	2	Standard	5	Williams	78	
H & Pers Dev 10	2	Lomond	5	Williams		wd
Horticulture 12	1	Altario	3	Williams	62	
Horticulture 12	1	Altario	3	Williams	72	
Horticulture 12	2	Delia	5	Williams	60	
Ird Ed 10	1	New Cessford	3	Smith	50	
Ird Ed 10	1	Carbon	3	Smith	54	
Ird Ed 10	1	Duchess	3	Smith	54	
Ird Ed 10	1	Duchess	3	Smith	61	
Ind Ed 10	1	Duchess	3	Smith	65	
Ind Ed 10	1	Delia	3	Smith	69	
Ind Ed 10	1	Altario	4	Smith	73	
Ind Ed 10	1	Carbon	3	Smith	74	
Ind Ed 10	1	Consort	3	Smith	74	
Ind Ed 10	1	Duchess	4	Smith	75	
Ind Ed 10	1	Delia	3	Smith	76	
Ind Ed 10	2	Tilley	4	Smith	36	
Ind Ed 10	2	Consort	5	Smith	51	
Ind Ed 10	2	Delia	5	Smith	54	
Ind Ed 10	2	Altario	3	Smith	55	
Ind Ed 10	2	Tilley	4	Smith	58	
Ind Ed 10	2	New Cessford	5	Smith	60	
Ind Ed 10	2	Consort	5	Smith	61	
Ind Ed 10	2	Endlang	5	Smith	61	
Ind Ed 10	2	Noble Central	4	Smith	61	
Ind Ed 10	2	Noble Central	4	Smith	61	
Ind Ed 10	2	Carbon	5	Smith	63	
Ind Ed 10	2	New Cessford	5	Smith	65	
Ind Ed 10	2	Bassano	5	Smith	66	
Ind Ed 10	2	Delia	5	Smith	66	
Ind Ed 10	2	Tilley	4	Smith	66	
Ind Ed 10	2	Consort	5	Smith	67	
Ind Ed 10	2	Noble Central	3	Smith	67	
Ind Ed 10	2	Delia	5	Smith	68	
Ind Ed 10	2	Manyberries	3	Smith	70	
Ind Ed 10	2	Morrin	5	Smith	70	
Ind Ed 10	2	Tilley	4	Smith	70	
Ind Ed 10	2	New Cessford	5	Smith	71	
Ind Ed 10	2	Delia	5	Smith	73	
Ind Ed 10	2	Altario	5	Smith	74	
Ind Ed 10	2	Delia	5	Smith	74	
Ind Ed 10	2	Morrin	5	Smith	74	
Ind Ed 10	2	Delia	5	Smith	75	
Ind Ed 10	2	Consort	5	Smith	77	
Ind Ed 10	2	Tilley	4	Smith	77	
Ind Ed 10	2	New Cessford	5	Smith	78	
Ind Ed 10	2	Morrin	5	Smith	79	
Ind Ed 10	2	Stirling	3	Smith	80	
Ind Ed 10	2	New Cessford	5	Smith	85	
Ind Ed 10	2	Cluny	5	Smith		wd
Ind Ed 10	12	Bassano	5	Smith	50	
Ind Ed 10	12	Bassano	5	Smith	55	
Ind Ed 10	12	Duchess	5	Smith	58	1st
Ind Ed 10	12	Carbon	5	Smith	68	

Ind Ed 10	12	Noble Central	4	Smith	76	
Law 20	1	Bassano	3	Carruthers	53	
Law 20	1	Foremost	3	Carruthers	56	
Law 20	1	Rosemary	3	Carruthers	58	
Law 20	1	Consort	3	Carruthers	61	
Law 20	1	Consort	3	Carruthers	64	
Law 20	1	Foremost	3	Carruthers	73	
Law 20	1	Foremost	3	Carruthers	74	
Law 20	1	Bassano	3	Carruthers	80	
Law 20	1	Bassano	3	Carruthers	82	
Law 20	1	Bassano	3	Carruthers	90	
Law 20	1	Bassano	3	Carruthers	92	
Law 20	1	Bassano	3	Carruthers		wd
Law 20	1	Coalhurst	3	Carruthers		wd
Law 20	2	Rosemary	3	Carruthers	38	
Law 20	2	Carbon	3	Carruthers	50	
Law 20	2	Gus Wetter	3	Carruthers	50	
Law 20	2	Rosemary	3	Carruthers	50	
Law 20	2	Gus Wetter	3	Carruthers	51	
Law 20	2	Coalhurst	3	Carruthers	56	
Law 20	2	Carbon	3	Carruthers	60	
Law 20	2	Hussar	3	Carruthers	64	
Law 20	2	Duchess	3	Carruthers	68	
Law 20	2	Altario	3	Carruthers	69	
Law 20	2	Endiang	3	Carruthers	69	
Law 20	2	Rosemary	3	Carruthers	72	
Law 20	2	Irvine	3	Carruthers	73	
Law 20	2	Bassano	3	Carruthers	75	
Law 20	2	Consort	3	Carruthers	78	
Law 20	2	Bassano	3	Carruthers	79	
Law 20	2	Coalhurst	3	Carruthers	83	
Law 20	2	Hussar	3	Carruthers	87	
Law 20	2	Hussar	3	Carruthers	91	
Law 20	2	Irvine	3	Carruthers	92	
Law 20	2	Consort	3	Carruthers	93	
Law 20	2	Tilley	3	Carruthers		moved
Law 20	12	Rosemary	3	Carruthers	77	
Law 30	1	Acme	5	Carruthers	65	
Law 30	2	Noble Central	5	Carruthers	66	
Law 30	2	Bassano	3	Carruthers	68	
Law 30	2	Consort	5	Carruthers	68	
Law 30	2	Bassano	5	Carruthers	75	
Law 30	2	Bassano	5	Carruthers	75	
Law 30	2	Bassano	5	Carruthers	79	
Law 30	2	Consort	5	Carruthers	84	
Law 30	2	Acme	5	Carruthers	86	
Law 30	2	Acme	5	Carruthers	87	
Law 30	2	Bassano	3	Carruthers	89	
Law 30	2	Bassano	5	Carruthers	89	
Law 30	2	Tilley	5	Carruthers	89	
Law 30	2	Gus Wetter	5	Carruthers		wd
Law 30	2	Tilley	5	Carruthers		wd
Law 30	2	Foremost	5	Carruthers		
Law 30	2	Foremost	5	Carruthers		
Law 30	12	Coalhurst	5	Carruthers	74	
Law 30	12	Hussar	5	Carruthers	90	
Law 30	12	Endiang	5	Carruthers		wd
Literature 21A	1	Rosemary	3	Gustavsen	77	
Literature 21A	1	Rosemary	3	Gustavsen	80	

Literature 21A	1	Rosemary	3	Gustavsen	81	
Literature 21A	1	Rosemary	3	Gustavsen		inc
Literature 21A	2	Morrin	5	Gustavsen	0	
Literature 21B	1	New Cessford	3	Gustavsen	93	
Macroeconomics 30	12	Rosemary	3	Huddle		dc
Marketing 20	2	Altario	3	Carruthers	65	
Marketing 20	2	Altario	3	Carruthers	69	
Marketing 20	2	Tilley	3	Carruthers	72	
Marketing 20	2	Tilley	3	Carruthers	86	
Marketing 20	2	Tilley	3	Carruthers	91	
Marketing 20	2	Coalhurst	5	Carruthers		wd
Math 10	1	Delia	5	Ketchall	50	
Math 10	1	Delia	5	Ketchall	63	
Math 10	1	Delia	5	Ketchall	65	
Math 10	1	Tilley	5	Huckerby		wd
Math 10	2	Morrin	5	Ketchall	0	
Math 10	2	Standard	5	Ketchall	65	
Math 10	2	Stirling	5	Ketchall	71	
Math 10	2	Duchess	5	Ketchall		inc
Math 10	2	Altario	5	Ketchall		wd
Math 10	2	Duchess	5	Ketchall		wd
Math 13	1	Standard	5	Jensen	35	
Math 13	1	Lomond	5	Jensen	37	
Math 13	1	Gus Wetter	5	Jensen	38	
Math 13	1	Standard	5	Jensen	43	
Math 13	1	Consort	5	Jensen	47	
Math 13	1	Consort	5	Jensen	48	
Math 13	1	Carbon	5	Jensen	51	
Math 13	1	Consort	5	Jensen	51	
Math 13	1	Irvine	5	Jensen	52	
Math 13	1	Foremost	5	Jensen	53	
Math 13	1	Gus Wetter	5	Jensen	53	
Math 13	1	Tilley	5	Jensen	53	
Math 13	1	Rosemary	5	Jensen	54	
Math 13	1	Consort	5	Jensen	55	
Math 13	1	Standard	5	Jensen	55	
Math 13	1	Gus Wetter	5	Jensen	56	
Math 13	1	Tilley	5	Jensen	56	
Math 13	1	Consort	5	Jensen	57	
Math 13	1	Gus Wetter	5	Jensen	57	
Math 13	1	Foremost	5	Jensen	58	
Math 13	1	Gus Wetter	5	Jensen	59	
Math 13	1	Foremost	5	Jensen	61	
Math 13	1	Gus Wetter	5	Jensen	61	
Math 13	1	Carbon	5	Jensen	62	
Math 13	1	Gus Wetter	5	Jensen	62	
Math 13	1	Rosemary	5	Jensen	62	
Math 13	1	Consort	5	Jensen	67	
Math 13	1	Gus Wetter	5	Jensen	68	
Math 13	1	Foremost	5	Jensen	70	
Math 13	1	Carbon	5	Jensen	74	
Math 13	1	Tilley	5	Jensen		left school
Math 13	1	Altario	5	Jensen		wd
Math 13	1	Lomond	5	Jensen		wd
Math 13	2	Consort	5	Gibb	31	
Math 13	2	Gus Wetter	5	Gibb	42	
Math 13	2	Bassano	5	Gibb	43	

Math 13	2	Bassano	5	Gibb	47	
Math 13	2	Stirling	5	Gibb	50	
Math 13	2	Standard	5	Gibb	51	
Math 13	2	Standard	5	Gibb	59	
Math 13	2	Carbon	5	Gibb		wd
Math 13	2	Manyberries	5	Gibb		wd
Math 13	2	Standard	5	Gibb		wd
Math 13	2	Foremost	5	Gibb		
Math 13	1 2	Bassano	5	Gibb	42	
Math 13	1 2	Carbon	5	Gibb	42	
Math 13	1 2	Duchess	5	Gibb	42	
Math 13	1 2	Carbon	5	Gibb	43	
Math 13	1 2	Duchess	5	Gibb	44	
Math 13	1 2	Duchess	5	Gibb	46	
Math 13	1 2	Carbon	5	Gibb	51	
Math 13	1 2	Duchess	5	Gibb	54	
Math 13	1 2	Carbon	5	Gibb	58	
Math 13	1 2	Carbon	5	Gibb	60	
Math 13	1 2	Carbon	5	Gibb	62	
Math 13	1 2	Carbon	5	Gibb	77	
Math 13	1 2	Tilley	5	Gibb		moved
Math 13	1 2	Bassano	5	Gibb		wd
Math 14	1	New Cessford	5	Burkholder	64	
Math 14	2	Cluny	5	Burkholder	55	
Math 14	2	Carbon	5	Burkholder	67	
Math 14	2	Cluny	5	Burkholder	74	
Math 15	1	Consort	5	Burkholder	38	
Math 15	1	Foremost	5	Burkholder	50	
Math 15	1	Foremost	5	Burkholder	50	
Math 15	1	Standard	5	Burkholder	50	
Math 15	1	Standard	5	Burkholder	50	
Math 15	1	Standard	5	Burkholder	50	
Math 15	1	Sen Gershaw	5	Burkholder	52	
Math 15	1	Consort	5	Burkholder	54	
Math 15	1	Consort	5	Burkholder	55	
Math 15	1	Standard	5	Burkholder	56	
Math 15	1	Standard	5	Burkholder	56	
Math 15	1	Standard	5	Burkholder	57	
Math 15	1	Altario	5	Burkholder	60	
Math 15	1	Altario	5	Burkholder	60	
Math 15	1	Tilley	5	Burkholder	63	
Math 15	1	Consort	5	Burkholder	65	
Math 15	1	Sen Gershaw	5	Burkholder	65	
Math 15	1	Consort	5	Burkholder	67	
Math 15	1	Standard	5	Burkholder		left school
Math 15	1	Altario	5	Burkholder		wd
Math 15	1	Duchess	5	Burkholder		wd
Math 15	1	Lomond	5	Burkholder		wd
Math 15	1	Tilley	5	Burkholder		wd
Math 15	2	Consort	5	Huddle	35	
Math 15	2	Lomond	5	Burkholder	40	
Math 15	2	Consort	5	Burkholder	46	
Math 15	2	Consort	5	Burkholder	50	
Math 15	2	Delia	5	Burkholder	50	
Math 15	2	Manyberries	5	Burkholder	50	
Math 15	2	Coronation	5	Burkholder	51	
Math 15	2	Manyberries	5	Burkholder	52	
Math 15	2	Lomond	5	Burkholder	53	
Math 15	2	Duchess	5	Burkholder	54	
Math 15	2	Lomond	5	Burkholder	55	

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Math 15	2	Coronation	5	Burkholder	59	
Math 15	2	Lomond	5	Burkholder	59	
Math 15	2	Carbon	5	Burkholder	60	
Math 15	2	Duchess	5	Burkholder	64	
Math 15	2	Duchess	5	Burkholder	67	
Math 15	2	Manyberries	5	Burkholder	67	
Math 15	2	Carbon	5	Burkholder	69	
Math 15	2	Consort	5	Burkholder	72	
Math 15	2	Sen Gershaw	5	Burkholder	80	
Math 15	2	Lomond	5	Burkholder	87	
Math 15	2	Cluny	5	Burkholder		wd
Math 15	2	Cluny	5	Burkholder		wd
Math 15	2	Cluny	5	Burkholder		wd
Math 15	2	Cluny	5	Burkholder		wd
Math 15	12	Bassano	5	Burkholder	36	
Math 15	12	Bassano	5	Burkholder	37	
Math 15	12	Bassano	5	Burkholder	39	
Math 15	12	Bassano	5	Burkholder	42	
Math 15	12	Bassano	5	Burkholder	43	
Math 15	12	Bassano	5	Burkholder	45	
Math 15	12	Carbon	5	Burkholder	45	
Math 15	12	Carbon	5	Burkholder	45	
Math 15	12	Carbon	5	Burkholder	50	
Math 15	12	Altario	5	Burkholder	58	
Math 15	12	Delia	5	Burkholder	58	
Math 15	12	Carbon	5	Burkholder	67	
Math 15	12	Duches	5	Burkholder	77	
Math 15	12	Duchess	5	Burkholder	79	
Math 15	12	Bassano	5	Burkholder		wd
Math 15	12	Bassano	5	Burkholder		wd
Math 15	12	Carbon	5	Burkholder		wd
Math 20	2	Acme	5	Ketchall	59	
Math 20	2	Delia	5	Ketchall	71	
Math 20	2	Gus Wetter	5	Ketchall		wd
Math 20	2	Stirling	5	Ketchall		wd
Math 23	1	Sen Gershaw	5	Gibb	38	
Math 23	1	Gus Wetter	5	Gibb	42	
Math 23	1	Acme	5	Gibb	50	
Math 23	1	Foremost	5	Gibb	50	
Math 23	1	Sen Gershaw	5	Gibb	50	
Math 23	1	Standard	5	Gibb	50	
Math 23	1	Carbon	5	Gibb	51	
Math 23	1	Sen Gershaw	5	Gibb	51	
Math 23	1	Consort	5	Gibb	53	
Math 23	1	Sen Gershsaw	5	Gibb	53	
Math 23	1	Carbon	5	Gibb	54	
Math 23	1	Consort	5	Gibb	56	
Math 23	1	Sen Gershaw	5	Gibb	57	
Math 23	1	Standard	5	Gibb	57	
Math 23	1	Carbon	5	Gibb	58	
Math 23	1	Consort	5	Gibb	58	
Math 23	1	Consort	5	Gibb	60	
Math 23	1	Consort	5	Gibb	61	
Math 23	1	Sen Gershaw	5	Gibb	61	
Math 23	1	Foremost	5	Gibb	63	
Math 23	1	Gus Wetter	5	Gibb	68	
Math 23	1	Gus wetter	5	Gibb	73	
Math 23	1	Carbon	5	Gibb	74	
Math 23	1	Younstown	5	Gibb	85	
Math 23	1	Carbon	5	Gibb	95	

Math 23	1	Tilley	5	Gibb		left school
Math 23	1	Morrin	5	Gibb		locally taug
Math 23	1	Acme	5	Gibb		wd
Math 23	1	Duchess	5	Gibb		wd
Math 23	1	Gus Wetter	5	Gibb		wd
Math 23	2	Consort	5	Gibb	26	
Math 23	2	Acme	5	Gibb	34	
Math 23	2	Acme	5	Gibb	35	
Math 23	2	Tilley	5	Gibb	41	
Math 23	2	Rosemary	5	Gibb	46	
Math 23	2	Altario	5	Gibb	50	
Math 23	2	Standard	5	Gibb	50	
Math 23	2	Tilley	5	Gibb	50	
Math 23	2	Acme	5	Gibb	51	
Math 23	2	Noble Central	5	Gibb	60	
Math 23	2	Carbon	5	Gibb	73	
Math 23	2	Rosemary	5	Gibb		dc
Math 23	2	Standard	5	Gibb		moved
Math 23	2	Consort	5	Gibb		wd
Math 23	2	Standard	5	Gibb		wd
Math 23	12	Standard	5	Gibb	34	
Math 23	12	Coalhurst	5	Gibb	36	
Math 23	12	Carbon	5	Gibb	44	
Math 23	12	Standard	5	Gibb	45	
Math 23	12	Acme	5	Gibb	47	
Math 23	12	Carbon	5	Gibb	50	
Math 23	12	Carbon	5	Gibb	54	
Math 23	12	Bassano	5	Gibb	57	
Math 23	12	BAssano	5	Gibb	67	
Math 23	12	Sen Gershaw	5	Gibb	70	
Math 23	12	Carbon	5	Gibb	73	
Math 23	12	Carbon	5	Gibb	92	
Math 23	12	Standard	5	Gibb		wd
Math 24	1	Noble Central	5	Burkholder	77	
Math 25	1	Tilley	5	Burkholder	41	
Math 25	1	Consort	5	Burkholder	46	
Math 25	1	Consort	5	Burkholder	46	
Math 25	1	Foremost	5	Burkholder	50	
Math 25	1	Endiang	5	Burkholder	59	
Math 25	1	Consort	5	Burkholder	62	
Math 25	1	Consort	5	Burkholder	62	
Math 25	1	Lomond	5	Burkholder	62	
Math 25	1	Sen Gershaw	5	Burkholder	62	
Math 25	1	Foremost	5	Burkholder	63	
Math 25	1	Foremost	5	Burkholder	67	
Math 25	1	Sen Gershaw	5	Burkholder	71	
Math 25	1	Rosemary	5	Burkholder	72	
Math 25	1	Foremost	5	Burkholder	74	
Math 25	1	Foremost	5	Burkholder	77	
Math 25	1	Altario	5	Burkholder		wd
Math 25	2	Rosemary	5	Burkholder	43	
Math 25	2	Rosemary	5	Burkholder	50	
Math 25	2	Gus Wetter	5	Burkholder	51	
Math 25	2	Bassano	5	Burkholder	54	
Math 25	2	Stirling	5	Burkholder	58	
Math 25	2	Tilley	5	Burkholder	60	
Math 25	2	Stirling	5	Burkholder	61	
Math 25	2	Bassano	5	Burkholder	65	
Math 25	2	Carbon	5	Burkholder	67	
Math 25	2	Duchess	5	Burkholder	71	

Math 25	2	Tilley	5	Burkholder	72	
Math 25	2	Stirling	5	Burkholder	73	
Math 25	2	Duchess	5	Burkholder		inc
Math 25	2	Stirling	5	Burkholder		inc
Math 25	2	Stirling	5	Burkholder		wd
Math 25	2	Stirling	5	Burkholder		wd
Math 25	12	Bassano	5	Burkholder	33	
Math 25	12	Bassano	5	Burkholder	50	
Math 25	12	Bassano	5	Burkholder	50	
Math 25	12	Duchess	5	Burkholder	52	
Math 25	12	Bassano	5	Burkholder	53	
Math 25	12	Duchess	5	Burkholder	55	
Math 25	12	Bassano	5	Burkholder	59	
Math 25	12	Bassano	5	Burkholder		wd
Math 25	12	Duchess	5	Burkholder		wd
Math 30	2	Manyberries	5	Ketchall	36	
Math 30	2	Gus Wetter	5	Ketchall	45	
Math 30	2	Delia	5	Ketchall	49	
Math 30	2	Delia	5	Ketchall	51	
Math 30	2	Stirling	5	Ketchall	51	
Math 30	2	Gus Wetter	5	Ketchall	54	
Math 30	2	Manyberries	5	Ketchall	59	
Math 30	2	Morrin	5	Ketchall	61	
Math 30	2	Stirling	5	Ketchall	65	
Math 30	2	Stirling	5	Ketchall	68	
Math 30	2	Tilley	5	Ketchall	72	
Math 30	2	Gus Wetter	5	Ketchall		dc
Math 30	2	Acme	5	Ketchall		wd
Math 30	2	Acme	5	Ketchall		wd
Math 30	2	Gus Wetter	5	Ketchall		wd
Math 30	2	Gus Wetter	5	Ketchall		wd
Math 30	2	Standard	5	Ketchall		wd
Math 30	2	Standard	5	Ketchall		wd
Math 30	12	Carbon	5	Ketchall		wd
Math 30	12	Carbon	5	Ketchall		wd
Math 31	1	Foremost	5	Huckerby	0	locally tauc
Math 31	1	Foremost	5	Huckerby	0	locally tauc
Math 31	1	Foremost	5	Huckerby	0	locally tauc
Math 31	1	Foremost	5	Huckerby	0	locally tauc
Math 31	1	Foremost	5	Huckerby	0	locally tauc
Math 31	1	Foremost	5	Huckerby	0	locally tauc
Math 31	1	Foremost	5	Huckerby	0	locally tauc
Math 31	1	Foremost	5	Huckerby	0	locally tauc
Math 31	1	Foremost	5	Huckerby	0	locally tauc
Math 31	1	Foremost	5	Huckerby	0	locally tauc
Math 31	1	Consort	5	Huckerby	78	
Math 31	1	Consort	5	Huckerby	83	
Math 31	1	Carbon	5	Huckerby	95	
Math 31	2	Coalhurst	5	Huckerby	50	
Math 31	2	Acme	5	Huckerby	63	
Math 31	2	Acme	5	Huckerby	63	
Math 31	2	Bassano	5	Huckerby	63	
Math 31	2	Standard	5	Huckerby	66	
Math 31	2	Standard	5	Huckerby	67	
Math 31	2	Delia	5	Huckerby	68	
Math 31	2	Standard	5	Huckerby	76	
Math 31	2	Consort	5	Huckerby	77	
Math 31	2	Delia	5	Huckerby	79	
Math 31	2	Consort	5	Huckerby	82	
Math 31	2	Stirling	5	Huckerby	82	

Math 31	2	Acme	5	Huckerby	83	
Math 31	2	Gus Wetter	5	Huckerby	84	
Math 31	2	Standard	5	Huckerby	84	
Math 31	2	Gus Wetter	5	Huckerby	85	
Math 31	2	Stirling	5	Huckerby	85	
Math 31	2	Consort	5	Huckerby	87	
Math 31	2	Acme	5	Huckerby	92	
Math 31	2	Gus Wetter	5	Huckerby	92	
Math 31	2	Manyberries	5	Huckerby	92	
Math 31	2	Stirling	5	Huckerby	93	
Math 31	2	Consort	5	Huckerby	95	
Math 31	2	Cluny	5	Huckerby		wd
Math 31	2	Coalhurst	5	Huckerby		wd
Math 31	2	Consort	5	Huckerby		wd
Math 31	2	Consort	5	Huckerby		wd
Math 31	2	Manyberries	5	Huckerby		wd
Math 31	12	Coalhurst	5	Huckerby	53	
Math 31	12	Duchess	5	Huckerby	69	
Math 31	12	Coalhurst	5	Huckerby	74	
Math 31	12	Consort	5	Huckerby	80	
Math 31	12	Noble Central	5	Huckerby	86	
Math 31	12	Duchess	5	Huckerby	88	
Math 31	12	Duchess	5	Huckerby	98	
Math 33	1	Irv ine	5	Ketchall	48	
Math 33	1	Acme	5	Ketchall	50	
Math 33	1	Foremost	5	Ketchall	50	
Math 33	1	Foremost	5	Ketchall	50	
Math 33	1	Foremost	5	Ketchall	50	
Math 33	1	Foremost	5	Ketchall	51	
Math 33	1	Irvine	5	Ketchall	51	
Math 33	1	Foremost	5	Ketchall	52	
Math 33	1	Irvine	5	Ketchall	56	
Math 33	1	Consort	5	Jensen	57	
Math 33	1	Foremost	5	Ketchall	59	
Math 33	1	Consort	5	Jensen	62	
Math 33	1	foremost	5	Ketchall	62	
Math 33	1	Foremost	5	Ketchall	63	
Math 33	1	Foremost	5	Ketchall	63	
Math 33	1	Foremost	5	Ketchall	75	
Math 33	2	Acme	5	Miller	45	
Math 33	2	Carbon	5	Miller	45	
Math 33	2	Consort	5	Miller	51	
Math 33	2	Consort	5	Miller	52	
Math 33	2	Irvine	5	Miller	52	
Math 33	2	Acme	5	Miller	53	
Math 33	2	Consort	5	Miller	53	
Math 33	2	Irvine	5	Miller	55	
Math 33	2	Morrin	5	Miller	58	
Math 33	2	Consort	5	Miller	59	
Math 33	2	Bassano	5	Miller	64	
Math 33	2	Acme	5	Miller	67	
Math 33	2	Youngstown	5	Miller	71	
Math 33	2	Acme	5	Miller	76	
Math 33	2	Youngstown	5	Miller	76	
Math 33	2	Standard	5	Miller		wd
Math 33	2	Gus Wetter	5	Miller		
Math 33	12	Hussar	5	Miller	45	
Math 33	12	Bassano	5	Miller	50	
Math 33	12	Hussar	5	Miller	50	
Math 33	12	Hussar	5	Miller	54	
Math 33	12	Hussar	5	Miller	54	

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Math 33	12	Coalhurst	5	Miller	56	
Math 33	12	Duchess	5	Miller	57	
Math 33	12	Bassano	5	Miller	61	
Math 33	12	Bassano	5	Miller	62	
Mechanics 12	1	Rosemary	5	Smith	52	
Mechanics 12	1	Consort	5	Smith	55	
Mechanics 12	1	Delia	5	Smith	56	
Mechanics 12	1	Consort	5	Smith	59	
Mechanics 12	1	Consort	5	Smith	59	
Mechanics 12	1	Rosemary	5	Smith	59	
Mechanics 12	1	Rosemary	5	Smith	60	
Mechanics 12	1	Warner	3	Smith	60	
Mechanics 12	1	Endlang	5	Smith	62	
Mechanics 12	1	Acme	5	Smith	66	
Mechanics 12	1	Consort	5	Smith	66	
Mechanics 12	1	Delia	5	Smith	66	
Mechanics 12	1	Rosemary	5	Smith	66	
Mechanics 12	1	Standard	5	Smith	66	
Mechanics 12	1	Delia	5	Smith	67	
Mechanics 12	1	Acme	5	Smith	70	
Mechanics 12	1	Cluny	5	Smith	71	
Mechanics 12	1	Consort	5	Smith	71	
Mechanics 12	1	Standard	5	Smith	72	
Mechanics 12	1	Altario	5	Smith	73	
Mechanics 12	1	Consort	5	Smith	75	
Mechanics 12	1	Consort	5	Smith	75	
Mechanics 12	1	Altario	5	Smith	76	
Mechanics 12	1	Gus Wetter	5	Smith	76	
Mechanics 12	1	Standard	5	Smith	76	
Mechanics 12	1	Standard	5	Smith	79	
Mechanics 12	1	Tilley	5	Smith		moved
Mechanics 12	1	Gus Wetter	5	Smith		wd
Mechanics 12	1	Rosemary	5	Smith		wd
Mechanics 12	2	Morrin	5	Smith	0	
Mechanics 12	2	Delia	5	Smith	50	
Mechanics 12	2	Consort	3	Smith	51	
Mechanics 12	2	Delia	5	Smith	55	
Mechanics 12	2	Consort	5	Smith	60	
Mechanics 12	2	Tilley	5	Smith	60	
Mechanics 12	2	Consort	5	Smith	61	
Mechanics 12	2	Delia	5	Smith	61	
Mechanics 12	2	Consort	5	Smith	62	
Mechanics 12	2	Hussar	5	Smith	63	
Mechanics 12	2	Altario	5	Smith	66	
Mechanics 12	2	Delia	5	Smith	66	
Mechanics 12	2	Irvine	5	Smith	66	
Mechanics 12	2	Tilley	5	Smith	66	
Mechanics 12	2	Consort	5	Smith	67	
Mechanics 12	2	Hussar	5	Smith	68	
Mechanics 12	2	Tilley	5	Smith	68	
Mechanics 12	2	Tilley	5	Smith	70	
Mechanics 12	2	Delia	5	Smith	71	
Mechanics 12	2	Standard	5	Smith	71	
Mechanics 12	2	Tilley	5	Smith	71	
Mechanics 12	2	Acme	5	Smith	72	
Mechanics 12	2	Delia	5	Smith	73	
Mechanics 12	2	Gus Wetter	5	Smith	73	
Mechanics 12	2	Irvine	5	Smith	73	
Mechanics 12	2	Altario	5	Smith	74	
Mechanics 12	2	Hussar	5	Smith	75	
Mechanics 12	2	Altario	5	Smith	78	

Mechanics 12	2	Morrin	5	Smith	78	
Mechanics 12	2	Tilley	5	Smith	78	
Mechanics 12	2	Morrin	5	Smith	79	
Mechanics 12	2	Duchess	5	Smith	80	
Mechanics 12	2	Morrin	5	Smith	86	
Mechanics 12	2	Rosemary	5	Smith		dc
Mechanics 12	2	Consort	3	Smith		moved
Mechanics 12	2	Consort	5	Smith		moved
Mechanics 12	2	Acme	5	Smith		wd
Mechanics 12	2	Cluny	5	Smith		wd
Mechanics 12	2	Consort	5	Smith		wd
Mechanics 12	2	Delia	5	Smith		wd
Mechanics 12	2	Irvine	5	Smith		wd
Mechanics 12	2	Standard	5	Smith		wd
Mechanics 12	2	Rosemary	5	Smith		
Mechanics 12	12	Bassano	5	Smith	50	
Mechanics 12	12	Bassano	5	Smith	50	
Mechanics 12	12	Bassano	5	Smith	50	
Mechanics 12	12	Cluny	5	Smith	50	
Mechanics 12	12	Cluny	5	Smith	50	
Mechanics 12	12	Hussar	5	Smith	50	
Mechanics 12	12	Bassano	5	Smith	51	
Mechanics 12	12	Manyberries	5	Smith	52	
Mechanics 12	12	Bassano	5	Smith	53	
Mechanics 12	12	Cluny	5	Smith	55	wd
Mechanics 12	12	Duchess	5	Smith	55	
Mechanics 12	12	Bassano	5	Smith	57	
Mechanics 12	12	Bassano	5	Smith	57	
Mechanics 12	12	Bassano	5	Smith	58	
Mechanics 12	12	Manyberries	5	Smith	58	
Mechanics 12	12	Rosemary	5	Smith	60	
Mechanics 12	12	Coalhurst	5	Smith	64	
Mechanics 12	12	Manyberries	5	Smith	64	
Mechanics 12	12	Manyberries	5	Smith	66	
Mechanics 12	12	Bassano	5	Smith	68	
Mechanics 12	12	Coalhurst	5	Smith	72	
Mechanics 12	12	Duchess	5	Smith	72	
Mechanics 12	12	Bassano	5	Smith	74	
Mechanics 12	12	Bassano	5	Smith	76	
Mechanics 12	12	Bassano	5	Smith	76	
Mechanics 12	12	Bassano	5	Smith	77	
Mechanics 12	12	Bassano	5	Smith	84	
Mechanics 12	12	Bassano	5	Smith		wd
Mechanics 12	12	Bassano	5	Smith		wd
Mechanics 12	12	Coalhurst	5	Smith		wd
Mechanics 12	12	Gus Wetter	5	Smith		wd
Mechanics 12	12	Gus Wetter	5	Smith		wd
Mechanics 12	12	Gus Wetter	5	Smith		wd
Mechanics 12	12	Manyberries	5	Smith		wd
Mechanics 12	12	Manyberries	5	Smith		wd
Mechanics12	1	Gus Wetter	5	Smith		wd
Occupations 10	1	Consort	3	Williams	28	
Occupations 10	1	Tilley	3	Williams	38	
Occupations 10	1	Consort	3	Williams	44	
Occupations 10	1	Consort	3	Williams	52	
Occupations 10	1	Consort	3	Williams	57	
Occupations 10	1	Tilley	3	Williams	68	
Occupations 10	1	Consort	3	Williams	75	
Occupations 10	1	Tilley	3	Williams	77	
Occupations 10	1	Consort	3	Williams	86	

Occupations 10	1	Delia	3	Williams		wd
Occupations 10	2	Duchess	4	Williams	0	
Occupations 10	2	Consort	3	Williams	27	
Occupations 10	2	Consort	3	Williams	50	
Occupations 10	2	Consort	3	Williams	54	
Occupations 10	2	Carbon	3	Williams	55	
Occupations 10	2	Lomond	3	Williams	56	
Occupations 10	2	Consort	3	Williams	67	
Occupations 10	2	Noble Central	3	Williams	71	
Occupations 10	2	Tilley	3	Williams	72	
Occupations 10	2	Tilley	3	Williams	81	
Occupations 10	2	Tilley	3	Williams	90	
Occupations 10	2	Lomond	5	Williams		wd
Occupations 10	2	Noble Central	3	Williams		wd
Per Liv Skills 10	1	Tilley	5	Williams	51	
Per Liv Skills 10	2	Gus Wetter	4	Williams	0	
Per Liv Skills 10	2	Lomond	5	Williams	45	
Per Liv Skills 10	2	Lomond	5	Williams	50	
Per Liv Skills 10	2	Lomond	5	Williams	50	
Per Liv Skills 10	2	Tilley	3	Williams	51	
Per Liv Skills 10	2	Cluny	5	Williams	53	
Per Liv Skills 10	2	Coalhurst	5	Williams	53	
Per Liv Skills 10	2	Carbon	5	Williams	55	
Per Liv Skills 10	2	Lomond	5	Williams	56	
Per Liv Skills 10	2	Altario	5	Williams	57	
Per Liv Skills 10	2	Acme	5	Williams	58	
Per Liv Skills 10	2	Coalhurst	5	Williams	60	
Per Liv Skills 10	2	Cluny	3	Williams	63	
Per Liv Skills 10	2	Tilley	5	Williams	65	
Per Liv Skills 10	2	Carbon	5	Williams	69	
Per Liv Skills 10	2	Carbon	5	Williams	71	
Per Liv Skills 10	2	Coalhurst	5	Williams	75	
Per Liv Skills 10	2	Coalhurst	4	Williams	77	
Per Liv Skills 10	2	Morrin	5	Williams	77	
Per Liv Skills 10	2	Lomond	3	Williams	97	
Per Liv Skills 10	2	Cluny	5	Williams		wd
Per Liv Skills 10	2	Carbon	5	Williams		wd
Per Liv Skills 10	2	Cluny	5	Williams		wd
Per Liv Skills 10	2	Cluny	5	Williams		wd
Per Liv Skills 10	2	Gus Wetter	3	Williams		wd
Per Liv Skills 10	2	Lomond	5	Williams		wd
Per Liv Skills 10	2	Standard	5	Williams		wd
Per Liv Skills 10	2	Tilley	5	Williams		wd
Per Liv Skills 30	1	Acme	5	Williams	60	
Per Liv Skills 30	1	Coalhurst	5	Williams	73	
Per Liv Skills 30	1	Coalhurst	5	Williams		wd
Per Liv Skills 30	2	Rosemary	5	Williams	59	
Per Liv Skills 30	2	Tilley	5	Williams	59	
Per Liv Skills 30	2	Cluny	5	Williams	63	
Per Liv Skills 30	2	Duchess	5	Williams	63	
Per Liv Skills 30	2	Duchess	5	Williams	68	
Per Liv Skills 30	2	Tilley	5	Williams	73	
Per Liv Skills 30	2	Rosemary	5	Williams	76	
Per Liv Skills 30	12	Hussar	5	Williams	51	
Pers Psych 20	1	Bassano	0	Huddle	40	
Pers Psych 20	1	Foremost	3	Huddle	47	
Pers Psych 20	1	Gus Wetter	3	Huddle	51	
Pers Psych 20	1	Duchess	3	Huddle	52	
Pers Psych 20	1	Foremost	3	Huddle	52	

Pers Psych 20	1	Foremost	3	Huddle	57	
Pers Psych 20	1	Foremost	3	Huddle	58	
Pers Psych 20	1	Gus Wetter	3	Huddle	58	
Pers Psych 20	1	Acme	3	Huddle	60	
Pers Psych 20	1	Warner	3	Huddle	60	
Pers Psych 20	1	Foremost	3	Huddle	62	
Pers Psych 20	1	Foremost	3	Huddle	63	
Pers Psych 20	1	Acme	3	Huddle	64	
Pers Psych 20	1	Foremost	3	Huddle	65	
Pers Psych 20	1	Duchess	3	Huddle	67	
Pers Psych 20	1	Foremost	3	Huddle	67	
Pers Psych 20	1	foremost	3	Huddle	69	
Pers Psych 20	1	Gus Wetter	3	Huddle	69	
Pers Psych 20	1	Foremost	3	Huddle	70	
Pers Psych 20	1	Bassano	3	Huddle	72	
Pers Psych 20	1	Gus Wetter	3	Huddle	73	
Pers Psych 20	1	Gus Wetter	3	Huddle	74	
Pers Psych 20	1	Gus Wetter	3	Huddle	75	
Pers Psych 20	1	Acme	3	Huddle	77	
Pers Psych 20	1	Foremost	3	Huddle	78	
Per Psych 20	1	Coalhurst	3	Huddle	83	
Pers Psych 20	1	Carbon	3	Huddle	86	
Pers Psych 20	1	Altario	3	Huddle	87	
Pers Psych 20	1	Altario	3	Huddle	89	
Pers Psych 20	1	Acme	3	Huddle		wd
Pers Psych 20	1	Altario	3	Huddle		wd
Pers Psych 20	1	Gus Wetter	3	Huddle		wd
Pers Psych 20	1	Gus Wetter	3	Huddle		wd
Pers Psych 20	1	Noble Central	3	Huddle		wd
Pers Psych 20	2	Acme	3	Huddle	50	
Pers Psych 20	2	Standard	3	Huddle	52	
Pers Psych 20	2	Acme	3	Huddle	57	
Pers Psych 20	2	Acme	3	Huddle	59	
Pers Psych 20	2	Tilley	3	Huddle	59	
Pers Psych 20	2	Warner	3	Huddle	60	
Pers Psych 20	2	Bassano	3	Huddle	61	
Pers Psych 20	2	Acme	3	Huddle	79	
Pers Psych 20	2	Noble Central	3	Huddle	85	
Pers Psych 20	2	Coronation	3	Huddle	88	
Pers Psych 20	2	Gus Wetter	3	Huddle		dc
Pers Psych 20	2	Bassano	3	Huddle		wd
Pers Psych 20	2	Gus Wetter	3	Huddle		wd
Pers Psych 20	2	Noble Central	3	Huddle		wd
Pers Psych 20	2	Sen Gershaw	3	Huddle		
Pers Psych 20	2	Sen Gershaw	3	Huddle		
Pers Psych 20	2	Sen Gershaw	3	Huddle		
Physics 10	1	Delia	3	Russell	40	
Physics 10	1	Carbon	3	Russell	44	
Physics 10	1	Lomond	3	Russell	58	
Physics 10	1	Lomond	3	Russell	62	
Physics 10	1	Lomond	3	Russell	67	
Physics 10	1	Carbon	3	Russell	90	
Physics 10	1	Duchess	3	Russell		wd
Physics 10	1	Tilley	3	Russell		wd
Physics 10	2	Delia	3	Russell	21	
Physics 10	2	Carbon	3	Russell	40	
Physics 10	2	Delia	3	Russell	52	
Physics 10	2	Gus Wetter	3	Russell		dc
Physics 10	2	Altario	3	Russell		wd
Physics 10	2	Carbon	3	Russell		wd
Physics 10	2	Lomond	3	Russell		wd

Physics 10	2	Lomond	3	Russell		wd
Physics 10	2	Lomond	3	Russell		wd
Physics 10	2	Foremost	3	Russell		
Physics 20	1	Carbon	5	Russell	77	
Physics 20	2	Consort	3	Russell	42	
Physics 20	2	consort	3	Russell	44	
Physics 20	2	Acme	3	Russell	59	
Physics 20	2	Morrin	3	Russell	66	
Physics 20	2	Carbon	5	Russell		wd
Physics 20	2	Della	3	Russell		wd
Physics 20	2	Irvine	5	Russell		wd
Physics 30	1	Coalhurst	5	Russell	50	
Physics 30	1	Coalhurst	5	Russell	75	
Physics 30	1	Morrin	5	Russell	80	
Physics 30	1	Coalhurst	5	Russell	84	
Physics 30	1	Coalhurst	5	Russell	88	
Physics 30	1	Coalhurst	5	Russell		wd
Physics 30	2	Irvine	5	Russell	45	
Physics 30	2	Rosemary	5	Russell	60	
Physics 30	2	Irvine	5	Russell	65	
Physics 30	2	Irvine	5	Russell	83	
Physics 30	2	Irvine	5	Russell	85	
Physics 30	2	Standard	5	Russell	p	
Physics 30	2	Cluny	5	Russell		wd
Physics 30	2	Duchess	5	Russell		wd
Physics 30	2	Duchess	5	Russell		wd
Physics 30	2	Irvine	5	Russell		wd
Physics 30	2	Manyberries	5	Russell		wd
Physics 30	2	Standard	5	Russell		wd
Physics 30	12	Coalhurst	5	Russell	56	
Physics 30	12	Coalhurst	5	Russell	68	
Reading 10	1	Lomond	5	Gustavsen	52	
Reading 10	1	Lomond	5	Gustavsen	57	
Reading 10	1	Altario	3	Gustavsen	59	
Reading 10	1	Altario	3	Gustavsen	63	
Reading 10	1	Altario	3	Gustavsen	74	
Reading 10	12	Altario	3	Gustavsen	50	
Reading 10	12	Altario	5	Gustavsen	63	
Rec Keeping 10	1	Consort	3	Carruthers	46	
Rec Keeping 10	1	New Cessford	3	Carruthers	58	
Rec Keeping 10	1	Consort	3	Carruthers	62	
Rec Keeping 10	1	Tilley	3	Carruthers	65	
Rec Keeping 10	1	Duchess	3	Carruthers	73	
Rec Keeping 10	1	Duchess	3	Carruthers	75	
Rec Keeping 10	1	Coalhurst	3	Carruthers	77	
Rec Keeping 10	1	Cluny	3	Carruthers	82	
Rec Keeping 10	1	Carbon	3	Carruthers	95	
Rec Keeping 10	1	Tilley	3	Carruthers	95	
Rec Keeping 10	2	Duchess	3	Carruthers	51	
Rec Keeping 10	2	Tilley	3	Carruthers	51	
Rec Keeping 10	2	Carbon	3	Carruthers	52	
Rec Keeping 10	2	Tilley	3	Carruthers	52	
Rec Keeping 10	2	Tilley	3	Carruthers	58	
Rec Keeping 10	2	Carbon	3	Carruthers	59	
Rec Keeping 10	2	Duchess	3	Carruthers	59	
Rec Keeping 10	2	Morrin	3	Carruthers	59	
Rec Keeping 10	2	Carbon	3	Carruthers	66	
Rec Keeping 10	2	Duchess	3	Carruthers	67	

Rec Keeping 10	2	Duchess	3	Carruthers	67	
Rec Keeping 10	2	Tilley	3	Carruthers	68	
Rec Keeping 10	2	Tilley	3	Carruthers	73	
Rec Keeping 10	2	Coalhurst	3	Carruthers	74	
Rec Keeping 10	2	Duchess	3	Carruthers	74	
Rec Keeping 10	2	Tilley	3	Carruthers	75	
Rec Keeping 10	2	Lomond	3	Carruthers	76	
Rec Keeping 10	2	Lomond	3	Carruthers	78	
Rec Keeping 10	2	Carbon	3	Carruthers	80	
Rec Keeping 10	2	Delia	3	Carruthers	80	
Rec Keeping 10	2	Tilley	3	Carruthers	81	
Rec Keeping 10	2	Tilley	3	Carruthers	81	
Rec Keeping 10	2	Tilley	3	Carruthers	81	
Rec Keeping 10	2	Acme	3	Carruthers	83	
Rec Keeping 10	2	Lomond	3	Carruthers	84	
Rec Keeping 10	2	Morrin	3	Carruthers	86	
Rec Keeping 10	2	Duchess	3	Carruthers	88	
Rec Keeping 10	2	Lomond	3	Carruthers	88	
Rec Keeping 10	2	Rosemary	3	Carruthers	90	
Rec Keeping 10	2	Tilley	3	Carruthers	94	
Rec Keeping 10	2	Bassano	3	Carruthers		wd
Rec Keeping 10	2	Coalhurst	3	Carruthers		wd
Rec Keeping 10	2	Tilley	3	Carruthers		wd
Rec Keeping 10	2	Duchess	3	Carruthers		
Science 11	1	Morrin	5	Russell	53	
Science 11	1	Morrin	5	Russell	54	
Science 11	1	Morrin	5	Russell	56	
Science 11	1	Morrin	5	Russell	62	
Science 11	1	New Cessford	5	Russell	62	
Science 11	1	Tilley	5	Russell	62	
Science 11	1	Morrin	5	Russell	67	
Science 11	1	Youngstown	5	Russell	74	
Science 11	1	Consort	5	Russell	75	
Science 11	1	Consort	5	Russell	86	
Science 11	1	Bassano	5	Russell		left school
Science 11	2	Lomond	5	Russell	53	
Science 11	2	Altario	5	Russell	54	
Science 11	2	Tilley	5	Russell	62	
Science 11	2	Tilley	5	Russell	62	
Science 11	2	Delia	5	Russell	63	
Science 11	2	Warner	5	Russell	66	
Science 11	2	Bassano	3	Russell	68	
Science 11	2	Carbon	5	Russell	68	
Science 11	2	Altario	5	Russell	69	
Science 11	2	Carbon	5	Russell	69	
Science 11	2	Consort	5	Russell	72	
Science 11	2	Warner	5	Russell	72	
Science 11	2	Warner	5	Russell	75	
Science 11	2	Warner	5	Russell	86	
Science 11	2	Morrin	5	Russell	90	
Science 11	2	Sen Gershaw	5	Russell		inc
Science 11	2	Altario	5	Russell		wd
Science 11	2	Manyberries	5	Russell		wd
Science 11	12	Manyberries	5	Russell	43	
Science 11	12	Bassano	5	Russell	50	
Science 11	12	Bassano	5	Russell	50	
Science 11	12	Bassano	5	Russell	50	
Science 11	12	Bassano	5	Russell	51	
Science 11	12	Bassano	5	Russell	53	
Science 11	12	Hussar	5	Russell	53	
Science 11	12	Manyberries	5	Russell	53	

Science 11	1 2	Bassano	3	Russell	55	
Science 11	1 2	Bassano	5	Russell	57	
Science 11	1 2	Manyberries	5	Russell	57	
Science 11	1 2	Carbon	5	Russell	58	
Science 11	1 2	Carbon	5	Russell	59	
Science 11	1 2	Carbon	5	Russell	60	
Science 11	1 2	Carbon	5	Russell	60	
Science 11	1 2	Carbon	5	Russell	61	
Science 11	1 2	Carbon	5	Russell	65	
Science 11	1 2	Bassano	5	Russell		wd
Soc Studies 10	1	Acme	5	Huddle	61	
Soc Studies 10	1	Acme	5	Huddle		wd
Soc Studies 10	2	Gus Wetter	5	Huddle	42	
Soc Studies 10	2	Duchess	5	Huddle	43	
Soc Studies 10	2	Delia	5	Huddle	53	
Soc Studies 10	2	Duchess	5	Huddle	64	
Soc Studies 10	2	Bassano	5	Huddle		wd
Soc Studies 10	2	Gus Wetter	5	Huddle		wd
Soc Studies 10	2	Irvine	5	Huddle		wd
Soc Studies 10	2	Foremost	5	Huddle		
Soc Studies 10	1 2	Noble Central	5	Huddle	61	
Soc Studies 13	2	Rosemary	5	Huddle	55	
Soc Studies 13	2	Duchess	5	Huddle	56	
Soc Studies 13	2	Standard	5	Huddle	56	
Soc Studies 13	2	Rosemary	5	Huddle	59	
Soc Studies 13	2	Bassano	5	Huddle	60	
Soc Studies 13	2	Sen Gershaw	5	Huddle	71	
Soc Studies 13	2	Foremost	5	Huddle		
Soc Studies 13	1 2	Standard	5	Huddle	28	
Soc Studies 13	1 2	Standard	5	Huddle	57	
Soc Studies 13	1 2	Standard	5	Huddle	59	
Soc Studies 13	1 2	Standard	5	Huddle	62	
Soc Studies 13	1 2	Standard	5	Huddle	62	
Soc Studies 20	1	Lomond	5	Huddle	57	
Soc Studies 20	1	Cluny	5	Huddle	73	
Soc Studies 20	1	Irvine	5	Huddle		wd
Soc Studies 20	1	Coalhurst	5	Huddle		wd
Soc Studies 20	2	Tilley	5	Huddle	28	
Soc Studies 20	2	Hussar	5	Huddle	42	
Soc Studies 20	2	Gus Wetter	5	Huddle	44	
Soc Studies 20	2	Standard	5	Huddle	55	
Soc Studies 20	2	Gus Wetter	5	Huddle	60	
Soc Studies 20	2	Standard	5	Huddle	62	
Soc Studies 20	2	Standard	5	Huddle	65	
Soc Studies 20	2	Standard	5	Huddle	72	
Soc Studies 20	2	Gus Wetter	5	Huddle	80	
Soc Studies 20	2	Gus Wetter	5	Huddle	88	
Soc Studies 20	2	Gus Wetter	5	Huddle	89	
Soc Studies 20	2	Chamberlain	5	Huddle		wd
Soc Studies 30	1	Foremost	5	Huddle	0	locally taug
Soc Studies 30	2	Gus Wetter	5	Huddle	50	
Soc Studies 30	2	Gus Wetter	5	Huddle	50	
Soc Studies 30	2	Gus Wetter	5	Huddle	51	
Soc Studies 30	2	Gus Wetter	5	Huddle	53	
Soc Studies 30	2	Carbon	5	Huddle	80	
Soc Studies 30	2	Gus Wetter	5	Huddle	89	
Soc Studies 30	2	Irvine	5	Huddle		wd
Soc Studies 30	1 2	Hussar	5	Huddle	45	

Terms 1 and 2 sorted by course/term/mark

Sociological Inst 20	1	Hussar	3	Huddle	53	
Typing 10	1	Consort	5	Carruthers	53	
Typing 10	1	Manyberries	5	Carruthers	82	
Typing 10	1	Cluny	5	Carruthers	83	
Typing 10	1	Cluny	5	Carruthers	87	
Typing 10	1	Lomond	5	Carruthers	87	
Typing 10	1	Lomond	5	Carruthers	91	
Typing 10	1	Lomond	5	Carruthers	93	
Typing 10	1	Lomond	5	Carruthers	96	
Typing 10	1	Lomond	5	Carruthers	97	
Typing 10	2	Duchess	3	Carruthers	59	
Typing 10	2	Hussar	5	Carruthers	66	
Typing 10	2	Consort	3	Carruthers	80	
Typing 10	2	Morrin	5	Carruthers	81	
Typing 10	2	Consort	3	Carruthers	94	
Typing 10	2	Consort	3	Carruthers	96	
Typing 10	2	Tilley	5	Carruthers	99	
Typing 10	2	Carbon	5	Carruthers		wd
Typing 20	1	Consort	5	Carruthers	50	
Typing 20	1	Cluny	5	Carruthers		wd
Typing 20	2	Cluny	5	Carruthers	75	
Typing 20	2	Consort	5	Carruthers	84	
Typing 20	2	Gus Wetter	5	Carruthers	91	
Typing 20	2	Cluny	5	Carruthers		wd
Typing 20	2	Consort	5	Carruthers		wd
Typing 20	12	Endiang	5	Carruthers	84	
Typing 20	12	Endiang	5	Carruthers		wd
Typing 30	2	Lomond	5	Carruthers	73	
Typing 30	12	Rosemary	5	Carruthers	75	
Typing 30	12	Rosemary	5	Carruthers	88	
W Can Hist 20	1	Foremost	3	Huddle	36	
W Can Hist 20	1	Carbon	3	Huddle	66	
W Can Hist 20	1	Morrin	3	Huddle	69	
W Can Hist 20	2	Acme	3	Huddle	52	
W Can Hist 20	2	Carbon	3	Huddle	61	
W Can Hist 20	2	Bassano	3	Huddle	63	
W Can Hist 20	2	Morrin	3	Huddle	67	
W Can Hist 20	12	Bassano	5	Huddle	47	
World Geo 30	1	Foremost	3	Huddle	51	
World Geo 30	1	Acme	3	Huddle	63	
World Geo 30	1	Rosemary	3	Huddle	86	
World Geo 30	1	Morrin	3	Huddle	90	
World Geo 30	1	Delia	3	Huddle		wd
World Geo 30	2	Altario	3	Huddle	42	
World Geo 30	2	Altario	3	Huddle	46	
World Geo 30	2	Consort	3	Huddle	47	
World Geo 30	2	Consort	3	Huddle	50	
World Geo 30	2	Acme	3	Huddle	54	
World Geo 30	2	Altario	3	Huddle	56	
World Geo 30	2	Altario	3	Huddle	57	
World Geo 30	2	Tilley	3	Huddle	58	
World Geo 30	2	Tilley	3	Huddle	61	
World Geo 30	2	Tilley	3	Huddle	68	
World Geo 30	2	Coalhurst	3	Huddle	74	
World Geo 30	2	Irvine	3	Huddle	74	
World Geo 30	2	Coalhurst	3	Huddle	78	
World Geo 30	2	Coalhurst	3	Huddle		wd

World Relig 30	1	Rosemary	3	Huddle	84	
World Relig 30	2	Consort	3	Huddle	52	
World Relig 30	2	Tilley	3	Huddle	68	
World Relig 30	2	New Cessford	5	Huddle	81	
World Relig 30	2	Chamberlain	3	Huddle		wd
World Relig 30	2	Chamberlain	3	Huddle		wd
World Relig 30	2	Irvine	3	Huddle		wd

APPENDIX G

PARENTAL PERMISSION FORM

EVALUATION OF THE DISTANCE LEARNING IN SMALL SCHOOLS PROJECT

The high school which your son/daughter is attending is one of 28 schools in Alberta which are participating in the Distance Learning in Small Schools Project. Through this project, students have access to courses beyond those normally offered in their schools. In order to gather information to refine this project and to judge its effectiveness, Alberta Education has engaged an evaluation team from The University of Calgary. Members of the evaluation team will be visiting each of the participating schools during the month of May. During these visits they will interview members of the school staff who have been directly involved with the project. They would also like to talk to students who have taken courses through the project. Your daughter/son has taken at least one DLSS course, and we are asking your permission for a member of the evaluation team to interview her/him when we visit your school. Following are answers to the most frequently asked questions:

Q: How long will it take?
A: Student interviews last approximately 15 minutes.

Q: When will it take place?
A: It will take place during the school day. Care is taken that student's course work will not suffer because of time out of the classroom for the interview.

Q: What happens to the information?
A: Information from all interviews is put together to help the evaluators develop a general picture of what is happening. No student names are recorded, and nothing can be traced back directly to any student.

Q: What sort of questions are asked?
A: We are interested in knowing how well students feel they are doing in DLSS courses, what the high points and low points have been, how well they feel the different types of technology have worked, and what they think might be done differently. The set of questions which will be asked will be given to the school principal to review before any interviews are conducted.

Q: Suppose the student doesn't like the experience of being interviewed?
A: This is not compulsory, and students are free to terminate an interview at any time.

W. Bruce Clark
DLSS Project Evaluation Team

I/we grant permission for _____ to be interviewed by a
(Student's Name)

member of the Project Evaluation Team as part of the evaluation of the Distance Learning in

Small Schools Project.

Signed: _____
Parent(s) or Guardian(s)